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ABSTRACT

The purpose of the career education project of the public school system of Yonkers, New York was to develop a conceptual model program appropriate for the diversified urban composition of Yonkers by use of the delphi technique to gain a broad consensus of and commitment to the basic premises of the career education model. A two-round, 35-statement survey of attitudes, concerns, and needs polling professional staff, students, parents, and business representatives revealed consensus on 32 of the statements. A strong need was indicated for career education for all students and grades, career education concepts and activities infused into the total curriculum, active teacher/administrator implementation, and community participation in program development. The model is based on continuous individual development in phases of awareness, development (personal and career) and competency (personal, social, economic and occupational). Piloting efforts have commenced in the four elementary schools used in the survey, inservice programs have been developed, and community-career education dialogue has been established for feedback. More than half of the document consists of a review of related literature, a comprehensive bibliography, and appendixes of supportive project data. (EA)

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INTERIM REPORT

THE EPISTEMOLOGY OF CAREER EDUCATION AND THE DEVELOPMENT VIA DELPHI TECHNIQUE OF THE CONCEPTUAL CAREER EDUCATION MODEL FOR YONKERS, NEW YORK

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ABSTRACT

One of the most frequently heard complaints against public education is its alleged failure to prepare students for the world outside the classroom. Critics point to the millions of youngsters who leave schools annually unprepared or unmotivated for higher education or rewarding employment.

Career education is offered as a viable alternative to the academic, vocational, and general tracks that have dominated schooling. Career education is viewed both as a marriage among these arbitrarily separated programs and as a bridge between the classroom, the world of work, and the adult experience. Many programs have been introduced recently which emphasize various theories of career development. However, no program has been conclusively demonstrated to be appropriate for a school district with as diversified an urban composition as Yonkers, New York.

This project was established in Yonkers to develop a career education model which would serve as the conceptual basis for a detailed, sequential K-14 program to be developed over a period of years. Two rounds of the Delphi Technique were used to achieve significant consensus among various components of the community as to the broad parameters of the model. The model was constructed upon this input and is considered appropriate for all persons, regardless of age or background.

Inservice teacher and administrator training programs,

curriculum and resource materials, and community involvement are being generated to bring the career education program envisioned in the model into every child's classroom on a regular basis as part of the ongoing curriculum. This model serves both as a visualization of the process of career education and as the core which unites all of education with the realities of life.

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CHAPTER 1

INTRODUCTION OF RESEARCH PROBLEM

This research project was developed and implemented in the City of Yonkers, New York, and in its public school system.

PURPOSE OF THE STUDY

The purpose of this study was to develop a conceptual model for career education for students in the public school system of Yonkers, New York. In order to develop this model, an analysis of concepts and attitudes existent among students, teachers, administrators, parents and community members and an attempt to reach consensus on the basic premises of the model had to be made. The Delphi Technique of anonymous-reporting consensus formation was employed to reach this goal. The model derived from this research was to be the basis of the evolution of the career education program in this school district and, hopefully, in similar districts around the nation.

GENERAL BACKGROUND INFORMATION

The City of Yonkers was the fourth largest in New York State, with a public school enrollment approximating 30,000, and a non-public school enrollment of about 10,000. The City was located in the southeastern portion of New York State, in the County of Westchester. The City represented an urban/suburban mix in a County which was principally suburban.

The school population was divided into a variety of ethnic groups: White, seventy-nine per cent, Black, thirteen per cent, Spanish, seven per cent, Oriental, seven-tenths per cent. Yonkers was largely industrial and service oriented with a range of personal incomes averaging approximately $12,000.

INTRODUCTION TO RESEARCH PROBLEM

> When I think back
> On all the crap I learned in high school,
> It's a wonder
> I can think at all.
> And though my lack of education
> Hasn't hurt me none,
> I can read the writing on the wall (Simon, 1973).

These pathetic lines from one of 1973's most popular record albums reflected an all too common assessment of the goals that John Gardner (1961) had set a dozen years earlier:

> Education in the formal sense is only a part of the society's larger task of abetting the individual's intellectual, emotional and moral growth. What we must reach for is a conception of perpetual self-discovery, perpetual reshaping to realize one's best self, to be the person one could be. This is a conception which far exceeds formal education in scope. It includes not only the surface, but deeper layers of thought and action. It involves adaptability, creativeness and vitality (p. 136).

Were schools moving in the direction of excellence that Gardner proposed, or were they wallowing in the stagnation that Simon sang of?

The U.S. Department of Health, Education and Welfare told us (1972):

> In typical schools throughout the country, young people complain that curriculums were dull and irrelevant, that their education is not opening pathways to a fulfilling adulthood. Substantial numbers of students score below their grade level in basic skills; high school dropout rates, absenteeism, academic failure, drug abuse, vandalism, and assaults on administrators, teachers, and pupils signal student discontent (p. 1).

Sidney Marland, then U.S. Commissioner of Education (1972b), talked about the hundreds of thousands of youngsters who dropped out of elementary and secondary schools and who never finished college. These young people were faced, for the most part, with limited options, none of them exciting or geared to their needs or talents (pp. 58-59). Both Dr. Marland (1972b) and Congressman Albert Quie (1973) talked about the tremendous cost to the nation in billions of dollars annually to educate these dropouts and the even greater cost in emotional frustration that these young people faced.

Commissioner Marland (1971a) expressed it most eloquently when he said:

> Consequently, half our high school students (a total of approximately a million and a half a year) are being offered what amounts to irrelevant, general education pap!
>
> Small wonder so many drop out, not because they have failed, but because we have failed them. Who would not at the earliest convenient and legal moment leave an environment that is neither satisfying, entertaining, nor productive (p. 24)?

Many prominent educators (Fanelli, 1973; Velie, 1974; Venn, 1970; Deiulio & Young, 1973; Worthington, 1972b) questioned the rationale behind enrolling eight of ten American students in college preparatory courses when less than twenty per cent of the jobs that will be available to them required any college training at all.

This was not a new concern; it was not based upon new trends or new facts. John Gardner (1961) wrote:

> No system which issues an open invitation to every youngster to "shoot high" can avoid facing the fact that room at the top is limited. Donald Paterson reports that four-fifths of our young people aspire to high-level jobs, of which there are only enough to occupy one-fifth of our labor force. Such figures conceal a tremendous amount of human disappointment (p. 20).

The American College Testing Program (Prediger, Roth & Noeth, 1973) recently completed a survey of 32,000 eighth, ninth and eleventh graders in 200 public and parochial schools. Their findings showed that about three-fourths of the eighth and eleventh graders wanted more help in career planning, and about half in both groups felt that they had received little or no help. About half of the eleventh graders made career choices traditionally associated with sexual stereotyping. The study concluded:

> If we were speaking of physical development rather than career development, we would describe American youth as hungry, undernourished and physically retarded (p. 33).

A 1971 survey *(Nation's Schools, 1971)* of public school superintendents showed that three-quarters were dissatisfied with their district's vocational programs (p. 38). A more recent Gallup poll (1973) found that few proposals received such overwhelming approval as the suggestion that schools give more emphasis to help students decide on their careers. Nine in ten persons in all major groups sampled in this survey said that they would like to have the schools give more emphasis to this part of the educational program (p. 42). John Marchak, Education Managing Editor of *Changing Times (1973)*, found:

> Pupils, staff, and parents all have extremely positive attitudes toward career education. They evidently think career education can change a person's future. They believe it can lower the high school dropout rate and increase employment. And they do not regard it as a fad that will soon be forgotten (p. 488).

He went on and discussed a recent survey of education majors at Indiana University which revealed that ninty-two per cent of them wanted to teach in a school system with career education because they saw career education as the way to make school relevant to today's young people (p. 499).

Sidney Marland (1971b), undoubtedly the impetus behind the current emphasis on career education, summed up his rationale:

> But we have shamefully shortchanged the majority of students nationally who have taken neither college preparatory nor out-and-out vocational education; those unfortunate youngsters were given a pallid succotash of some mathematics, some science, some social studies in something called general curriculum. Its victims enter the job market with nothing to offer beyond their diplomas. Even their basic skills in reading, say, or spelling, for lack of academic relevance are often weak and unattractive to employers.

He went further (1972a):

> There is an undesirable and counterproductive separation of the vocational curriculum, general curriculum and academic curriculum in our high schools, with the result that those in the vocational curriculum are often seen as low status technicians, while those in the academic curriculum emerge with little contact with, preparation toward, or qualifications for the world of work.

Endorsement of this concept and commitment to career education were articulated in recent governmental reports on education of the gifted and talented (Washington Monitoring Service, 1971) and on New York State vocational education (New York State Advisory Council, 1972).

Marland stated (1973):

> All education is career education, or should be, and the universal goal of American education should be this: that every young person completing grade twelve be ready to enter higher education or to enter useful and rewarding employment (p.8).

He declared that career education might be a new term but its concepts were not. He referred (1972c) to Dr. James Conant, who, in 1961, wrote:

> I must record an educational heresy, or rather support a proposition that many will accept as self-evident, but that some professors of the liberal arts will denounce as dangerously heretical. I submit that in a heavily urbanized and industrialized free society, the educational experiences of youth should fit his subsequent employment.

Support for career education has come from many corners. Educators around the nation such as Eli Ginzberg (1973), Kenneth Hoyt (1972), Donald Super (n.d.) and Robert Worthington (1972a) have articulated it clearly. In 1971, the Representative Assembly of the National Education Association passed the following resolution:

> The NEA believes that preparation of children for careers, vocations and productive jobs should be a basic policy of education. Educational programs should be developed for all children which will assure equal opportunity for career and occupational development.

At a career education workshop in 1972, Sidney Marland (1972a) stated that the concept of career education received its support from the highest levels of government. He quoted President Richard Nixon, in his 1972 State of the Union message, as having said:

> There is no more disconcerting waste than the waste of human potential. And there is no better investment than an investment in human fulfillment. Career education can help make education and training more meaningful for the student, more rewarding for the teacher, more available to the adult, more relevant for the disadvantaged and more productive for our country.

A September report by Harold Spears (1973) showed that members of Phi Delta Kappa ranked the goal "Develop pride in work and a feeling of self-worth" number two of eighteen goals in their survey.

Government support came from where it counted. The President's Commission on School Finance (1972) stated:

> The Commission recommends that career education be given priority and status at least equal to that now accorded to so-called college preparation and that federal, state and local governments and their education agencies take vigorous policy and financial steps in this direction.

The American Vocational Association Convention in December, 1973, as reported in *Career Education News* (p. 1), reiterated its previous position by declaring "Career Education is part of the total educational scene now and forever . . ." The convention went on to ask USOE for clarification of career education development, promotion, implementation and evaluation efforts and for additional funding both within and without the Vocational Education Act.

> Waving the Career Education flag just as hard as they could were John R. Ottina, US Commissioner of Education, and William F. Pierce, Deputy Commissioner for Occupational and Adult Education. Not once in his presentation at the opening general session did Ottina mention "vocational education". He said O.E. was committed to the Career Education concept and stressed that a deliberate C.E. strategy will emerge from O.E. with operational definitions to improve the quality and opportunity for career choice and career progression (*Career Education News*, pp. 2-3).

Support for career education was not coming from American educators and government alone. Harold Howe (1972), Vice President of the Ford Foundation, told a 1972 conference that he strongly advocated the emphasis and trends then evident in the career education movement. European Ministers of Education in June, 1973 (Wanner, 1973) reached several conclusions all of which endorsed the concept of career education as articulated by Commissioner Marland.

The report of the National Advisory Commission on Civil Disorders (1968) predated the arrival of "career education" but strongly urged emphasis on job preparation, programs and guidance. The reports of the Twentieth Century Fund Task Force on Employment Problems of Black Youth (1971) and the Special Task Force to the Secretary of Health, Education and Welfare (1973) both strongly supported career education in name and concept. This same high level of endorsement was generated by the Education Commission on the States based upon its task force assessment of national needs and priorities.

In a confidential study commissioned by American media and book publishers, Paul Abramson and Myra Sobel (1972) concluded that career education was a major priority of American education. They urged publishers to develop materials to meet this need and forcasted a significant market to justify the effort. (pp. 64-70).

Highly unlikely non-professional periodicals (*Reader's Digest* [Velie, 1974], *Scouting* [Winchester, 1973] and *Parents' Magazine* [Marland, 1972b]) called career education "the most exciting trend in schooling today" and advocated that significant steps in this direction be immediately taken by school authorities.

Yet, in spite of all the support career education has garnered, Abramson and Sobel (1972) concluded that the federal effort "suffers from haste, poor planning, lack of clear goals and over-publicity (p. 1)." The vast diversity of efforts in the many projects around the nation attested to this lack of research and planning. Dr. Calvin Grieder (1972) stated:

> Career Education is in dire need of massive and prolonged support - not merely financial support, but also, and even more importantly, philosophical, moral and intellectual support. Industry, business and labor must also be prepared to lend extensive aid and assistance in ways other than financial (p. 10).

The National Chamber of Commerce (1971) wrote both the President and the HEW Secretary saying:

> The U.S. Chamber of Commerce is pleased by what seems to be a new thrust by the U.S. Office of Education to make career education a high national priority. Certainly, no one knows the best approach to career

> education . . . : It is not any specific program that we applaud now, but the enunciation of a national policy to correct the deficiencies of an educational system presently dominated by academic and general education . . . .(p. 10).

In 1971, the Regents of the University of the State of New York issued a position paper on occupational education in which they urged that accelerated steps be taken to improve this area of public learning. More specific guidelines were issued by the State Education Department shortly thereafter in the form of a letter from Dr. Robert Seckendorf (1972), Assistant Commissioner of Education, in which he stated:

> It is our belief that implementing much of the career education focus is dependent upon curriculum change and the development of teacher understandings. All portions of the school program should be considered because career concepts must permeate all curriculum areas.

Three studies conducted during the past few years specifically for the Yonkers public schools (Miller, 1968; Leggett, 1969; Pitruzzello, 1972) concluded that Yonkers should improve its occupational awareness program.

Dr. Robert F. Alioto, Superintendent of the Yonkers public schools, has stated:

> Our philosophy is that each person should be accepted into the educational program as he is. He should be provided with a stimulating environment and opportunities for learning experiences designed to promote behavioral and intellectual development that will effect a happy adjustment to life (p. 1).

Motivated by emerging local and national evidence endorsing the efficacy of career education, the Director of Occupational Education of the Yonkers public school system originated a proposal under the Vocational Education Act Amendment of 1968 (Public Law 90-576). This proposal was designed to meet the observed career education needs of the Yonkers schools.

> The Yonkers school system, grades K-12, does not have an organized systematic program of career education integrated throughout the school curriculum. Although many teachers incorporate a form of career education in their instructional program, it would be a greater benefit to all students to have a systemwide K-14 career education program. Therefore, career education is a second priority area for the Yonkers school system for 1972-73 (Yonkers Board of Education, p. 4).

The New York State Education Department and the U.S. Office of Education agreed with the Yonkers assessment. Initial funding for an eighteen month period commenced July 1, 1973. The thrust of this funding was the development of a career education model for the Yonkers public school system and the development of curriculum materials and in-service teacher training on the elementary school level.

The office of the Career Education Project was opened and a staff was hired during the summer of 1973. Their initial obligation was to develop the career education model to be utilized. The grant which funded the project and the objectives of the Occupational Education Department of the Yonkers schools both expressed the stipulation that the model be developed collaterally by professional staff, students, parents and community people. Therefore, the first decision made was the vehicle to be used to develop the model.

The Delphi Technique was chosen because it allowed for large numbers of people who could not satisfactorily be brought together to make their inputs into the model development. By asking these people to react to thirty-five items on a survey form, and then by informing them of the results of the survey and asking them to respond again, movement towards consensus was achieved. The Technique avoided all the problems usually generated at large-scale meetings since no meetings were involved and the respondents did not know how each other reacted.

It was hoped to develop, via Delphi, a broad consensus of and commitment to the basic premises of the career education model.

PURPOSE OF THE STUDY

The Delphi Technique was used in an attempt to achieve broad consensus as to the basic premises of a conceptual career education model for the public school system of the City of Yonkers. It was hoped that this model could be used to develop meaningful career education for the students in the public schools of the City of Yonkers.

DEFINITION OF TERMS

CAREER

The *Dictionary of Personnel and Guidance Terms* (Hopke, ed., 1968) defined "career" as "A succession of related jobs, arranged in a higher order of prestige, through which persons move in an ordered (more or less predictable) sequence (p. 52)." This definition was workable and acceptable to many practitioners in the field of guidance and most people in general. However, it appeared too restrictive within the concept of career education as evolving within this project. Therefore, the definition was modified to: A SUCCESSION OF RELATED EXPERIENCES AND JOBS THROUGH WHICH PERSONS MOVE IN THE ATTAINMENT OF NEW EXPERIENCES AND JOBS.

The original *Dictionary* definition could describe the more common example of the student who went to college, got a graduate engineering degree, became a draftsman, then an assistant engineer, then a chief engineer and finally a project director. However, it could not accommodate the all-too-frequent example of the project director who designed and built the space capsule and whose career was washed out by a change in national priorities; he then became a teacher of mechanical drawing. Both contingencies should be contained within the definition of the word "career".

CAREER GUIDANCE

Ginsberg defined "career guidance" satisfactorily as:

> A PROCESS OF STRUCTURED INTERVENTION AIMED AT HELPING INDIVIDUALS TO TAKE ADVANTAGE OF THE EDUCATIONAL TRAINING AND OCCUPATIONAL OPPORTUNITIES THAT ARE AVAILABLE (1971, p. 7).

CAREER EDUCATION

There were several definitions of "career education" prevalent in the literature. Larry Bailey and Ronald Stadt (1973) stated:

> Career education refers to educational programs and curriculums at many different developmental levels, and provided by several types of delivery systems, which provide experiences designed to help individuals become oriented to, select, prepare for, enter, become established, and advance in an individually satisfying and productive career (pp. 346-347).

Walter Retzlaff (1973) used this definition:

> Career education is a thread that permeates the entire curriculum. It is like a river that expresses itself through tributaries that, in the case of education, are exemplified by the various subjects of school such as English, mathematics, science, and social studies . . . The community becomes the learning laboratory and the professional and lay representatives alike make up the teaching team. The doors of the classroom are thrust open to make learning take on meaning and purpose (p. 134).

Perhaps the most common definition of career education was expressed by Kenneth Hoyt (1973):

> Career education is the total effort of public education and the community aimed at helping all individuals become familiar with the values of a work oriented society, to integrate those values into their personal value structure, and to implement those values in their lives in such a way that work becomes possible, meaningful and satisfying to each individual (p. 23).

Abramson and Sobel (1972) defined career education for the publishing world as ". . . any educational process which makes the world of work known to students and which gives them an opportunity to explore and experience different work styles" (p. 8).

U.S. Senator Robert Byrd claimed "Career education is education which enables an individual to develop his creative potential, and which guides him in the constructive use of his talents" (1973, p. 39).

A more recent definition came from Dr. John Wilcox (*Career Education News*, 1974), Professor of Education and Director of the Institute for Occupational and Career Education at Cornell University. He described career education as:

> A developmental sequence of formal and informal cognitive, affective and psychomotor learning experiences, initiated during early childhood and continued throughout life, with intent to enhance the rational processes employed by the individual in choosing among the career options open to him (p. 3).

Keith Goldhammer (1972) said:

> Career education incorporates a view of the curriculum as an integrated and cumulative series of experiences designed to help the student achieve increasing power to make relevant decisions about all his life activities and increasing skill in the performance of his life roles (p. 276).

Marland (1972c) originally rejected the idea of a definition of career education, saying "a constraining definition at this point would be the best way to kill the whole idea." However, in December of the same year (1972d), he went so far as to offer this description:

> Career education implies a structured orientation and preparation program for every student as an integral part of his academic course work throughout the school and college years. Inherent in the concept is the principle that our schools and colleges are accountable to students not only for developing their problem-solving skills, self-awareness and a social consciousness, but for equipping them as well to earn a living in a personally satisfying career field (p. 202).

This research incorporated parts of each of the foregoing in utilizing this definition of career education:

> CAREER EDUCATION IS A COMMITMENT OF THE SCHOOLS AND THE COMMUNITY TO HELP ALL INDIVIDUALS BECOME AWARE OF, DEVELOP AND ACHIEVE COMPETENCE IN COPING WITH LIFE AND CAREER SO THAT BOTH ARE MEANINGFUL, REWARDING AND SATISFYING.

DELPHI TECHNIQUE

For purposes of this study, the Delphi Technique was defined as A CAREFULLY DESIGNED PROGRAM OF SEQUENTIAL INDIVIDUAL INTERROGATIONS CONDUCTED BY SURVEY INTERSPERSED WITH INFORMATION AND OPINION FEEDBACK.

LIMITATIONS OF THE STUDY

This study was limited to the geographical location of the City of Yonkers, New York and its public school system. The individual school populations which were involved in the study were those located at four pilot elementary schools: numbers 19, 26, 27, and 32.

This study was further limited to the development of a conceptual model for career education which reflected the attitudes of the populations sampled. The model would then be used as the basis for constructing curriculum and teacher training programs designed to implement career education in the school district.

IMPORTANCE OF THE STUDY

The effects of this study should be at least fourfold:

1. The results of this study should be used as the basis for development of the sequential career education program for the public school system of the City of Yonkers.

2. By involving professional staff, students, parents and community members, all segments of the school community should feel that they have had a measurable impact in the original development of the model. This should build significant commitment on the part of these components to the career education program that will evolve.

3. This study should help to assess the value of the Delphi Technique as a consensus forming method.

4. The findings of this study should be helpful to other researchers seeking to utilize the Delphi Technique in educational research.

5. The findings of this study should be helpful to other school districts considering the implementation of a career education program.

SUMMARY

The public school system of the City of Yonkers, New York, has identified the need for the development and implementation of a career education program. It rated this need as its number two priority for the school year 1972-73. This research was designed to provide a conceptual career education model to be utilized in developing the sequential K-14 program. The research employed the Delphi Technique to identify consensus among the various members of the school community as to the parameters of this career education model.

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CHAPTER TWO

REVIEW OF RELATED LITERATURE

Critics have claimed that public education is not relevant to students' needs. They have proposed that, in generations gone by, the schools more competently recognized the talents and met the needs of students. These critics have said that it was the schools of the mid-twentieth century that have missed the mark. Milton Larson (1973) clearly pointed out the fallacy in their assessment:

> Creative and imaginative people often are not recognized by their contemporaries. In fact, they are not recognized in school by their teachers either. History is full of illustrations to give guidance counselors pause. Consider some of these:
>
> Einstein was four years old before he could speak and seven before he could read. Isaac Newton did poorly in school, and Beethoven's music teacher once said of him, "As a composer, he is hopeless." When Thomas Edison was a boy, his teacher told him he was too stupid to learn anything. F. W. Woolworth got a job in a dry goods store when he was twenty-one, but his employers would not let him wait on a customer because he "didn't have enough sense." A newspaper editor fired Walt Disney because he had "no good ideas." Caruso's music teacher told him, "You can't sing. You have no voice at all." ...Leo Tolstoy flunked out of college; Werner Von Braun flunked ninth grade algebra...Louis Pasteur was rated a "mediocre" in chemistry...Abraham Lincoln entered the Black Hawk War as a captain and came out as a private...Winston Churchill failed the sixth form (grade)...
>
> Probably these people were identified as low achievers in school or as misfits on their job because of problems of relevance (p. 374).

Professor Alfred Manneback (1973) pointed out that career education was not new, except in name. The basic concepts which made up career education have been around historically, psychologically, sociologically, philosophically, and legislatively for a long time. He stated: "The rationale for career education is that students must make personal, educational and occupational decisions as they progress through life" (p. 154).

The purpose of this review of the literature was threefold:

(a) To examine those theories which have had impact on career development;

(b) To examine approaches to career education that have evolved from those theories;

(c) To examine the use of the Delphi Technique in consensus formation.

THEORIES OF CAREER DEVELOPMENT

The prevalent theories of career development have been grouped into six basic categories: Trait and Factor, Developmental, Psychoanalytic, Personality, Need, and General

TRAIT AND FACTOR THEORY

This was probably the oldest theory practiced by counselors. It was predicated upon a tight match of an individual's knowledge of himself and the specific demands of particular jobs. According to Parsons (1909), one compared what he thought he could do with the requirements of various jobs and picked the best "fit".

Obviously, the Parsonian approach required a great deal of information about vocational options. Frequently, this knowledge base was not readily available to the individual and he had to rely greatly on counselors for it. Unfortunately, most counselors were not equipped with all the information needed.

Similarly, this approach was predicated upon the individual's assessment of himself. Since this personal stock-taking often occurred at less-than-advantageous times in one's life, it was often inaccurate.

DEVELOPMENTAL THEORY

The basic premise of this theory was that decision-making behavior began in early childhood and continued throughout adulthood; this same continuance applied to occupational conceptualization.

Piaget (1968) postulated the theory that people experienced several stages of development as they grew. Most developmental theorists related their efforts to Piaget's conclusions. Havighurst (1964), for example, discussed career development as a six-stage, life-long process. Each stage had characteristic tasks which had to be successfully accomplished if the individual was to achieve happiness and success with the tasks appropriate to the stages which followed (pp. 215-35). Table 1 depicts Havighurst's six stages.

TABLE 1

HAVICHURST'S CAREER DEVELOPMENT STAGES

Stages	Age Range
Stage of Career Development	5 - 10
Acquiring the Basic Habits of Industry	10 - 15
Acquiring the Identity as a Worker in the Occupational Structure	15 - 25
Becoming a Productive Person	25 - 40
Maintaining a Productive Society	
Contemplating a Productive and Responsible Life	70+

Source: Gibson (1972), pp. 10-11.

Donald Super (1966) pointed out that, like many other aspects of development, career development could be conceived of as beginning early in life and proceeding along a curve until late in life. His theory was derived from the following ten propositions:

(1) People differ in their abilities, interests, and personalities.

(2) They are qualified, by virtue of these characteristics, each for a number of occupations.

(3) Each of these occupations requires a characteristic patter of abilities, interests, and personality traits, with tolerances wide enough, however, to allow both some variety of occupations for each individual and some variety of individuals in each occupation.

(4) Career preferences and competencies, the situations in which people live and work, and hence their self-concepts, change with time and experience (although self concepts are generally fairly stable from late adolescence until late maturity) making choice and adjustment a continuous process.

(5) This process may be summed up in a series of life stages characterized as those of growth, exploration, establishment, maintenance, and decline, and these stages may in turn be subdivided into (a) the fantasy, tentative, and realistic phases of the exploratory stage, and (b) the trial and stable phases of the establishment stage.

(6) The nature of the career pattern (that is, the occupational level attained and the sequence, frequency, and duration of trial and stable jobs) is determined by the individual's parental socio-economic level, mental ability, and personality characteristics, and by development of the self-concept.

(7) Development through the life stages can be guided, partly by facilitating the process of maturation of abilities and interests and partly by aiding in reality testing and in the development of the self-concept.

(8) The process of career development is essentially that of developing and implementing a self-concept: it is a compromise process in which the self-concept is a product of the interaction of inherited aptitudes, neural and endocrine make-up, opportunity to play various roles, and evaluations of the extent to which the results of role playing meet with the approval of superiors and fellows.

(9) The process of compromise between individual and social factors, between self-concept and reality, is one of role playing, whether the role is played in fantasy, in the counseling interview, or in real life activities such as school classes, clubs, part-time work, and entry jobs.

> (10) Work satisfactions and life satisfactions depend upon the extent to which the individual finds adequate outlets for his abilities, interests, personality traits, and values; they depend upon his establishment in a type of work, a work situation, and a way of life in which he can play the kind of role which his growth and exploratory experiences have led him to consider congenial and appropriate (p. 107).

Like Super's theory, Ginsberg (1972) characterized developmental stages leading to vocational choice. His reformulated theory had three major elements:

> (1) Occupational choice is a process that remains open as long as one makes and expects to make decisions about his work and career.
>
> (2) While the success of decisions that a young person makes during the preparatory period will have a shaping influence on his later career, so will the continuing changes he undergoes in work and life.
>
> (3) People make decisions about jobs and careers with an aim of optimizing their satisfaction by finding the best possible fit between their priority needs and desires and the opportunities and constraints that they confront in the world of work (pp. 169-176).

In his reformulated theory, Ginsberg recognized the fact that the process of career development was open-ended, that it was not irreversible, and that it was based upon a series of compromises.

Tiedeman's theory closely approximated Super's but Tiedman emphasized the formation of self in relation to educational experiences more than did Super. He also conceived of the self as the individual's evaluation rather than his perception of himself (Crites, 1969).

Several career educators (Gambino, 1969; Jensen, 1972; Mannebach, 1973; Fannelli, 1973; and Laramore, 1973) developed major career education hypotheses based upon variations of one or more of the developmental theories discussed.

PSYCHOANALYTIC THEORY

The psychoanalytic theory, most strongly advanced by Bordin, Nachmann, and Segal (1963), stated that career choice was mainly related to the satisfaction of basic psychological needs, gratification of impulses, and reduction of anxieties. They emphasized the importance of early childhood experiences. They also identified ten "dimensions" of work activities and related these to physiological functions and occupational expression.

Table 2 shows the ten dimensions and their related functions and expressions. This outline is based upon three assumptions made by Bordin, Nachmann, and Segal:

> 1. A continuity in development which links the earliest work of the organism in food getting and mastery of the body and coping with the stimulations of the environment to the most highly abstract and complex of intellectual and physical activities.
>
> 2. That the complex adult activities retain the same instinctual sources of gratification as the simple infantile ones.
>
> 3. That although the relative strengths and configurations of needs are subject to continual modification throughout the life span, their essential pattern is determined in the first six years of life. The seeking out of occupational outlets ...is the work of the school years, but the needs which will be the driving forces are largely set before that time (p. 110).

TABLE 2

SUMMARY OF NEED-GRATIFYING ACTIVITIES

Dimension	Physiological Functions	Occupational Expression
1. Nurturant	Feeding; protecting and promoting the growth of people, animals, plants	Social work; nursing; teaching
2. Oral Aggressive	Cutting; biting; chewing; devouring	Manufacturing; construction; mining
3. Manipulative	Physical power; influencing; persuading; threatening; seducing	Computer operations; sales; advertising
4. Sensual	Sight; touch; taste; sound	Artistic and creative occupations
5. Anal	Acquiring; timing and ordering; hoarding; smearing	Accounting; bookkeeping; painting
6. Genital	Erection; penetration; impregnation; producing	Architectural; deep-sea diving; agricultural
7. Exploratory	Investigating; exploring; knowing the facts	Fields of scientific investigations (e.g., mathematician, chemist, physicist)
8. Flowing and Quenching	Urethral	Plumbing; fire fighting; hydraulic engineering
9. Exhibiting	Impulse to exhibit phallus or whole body	Acting; law; advertising; the ministry
10. Rhythmic Movement	Physiological rhythm (heartbeat, respiration)	Musical; industrial, craftsmanlike, and artistic occupations that involve bodily rhythm

Source: Bailey & Stadt (1973), p. 78.

PERSONALITY THEORY

Holland's theory (Table 3) related personality types to similar jobs. He theorized that a person matched his perceived characteristics with a career he thought best suited his personality. Holland asserted that a person making a vocational choice was seeking a "niche" that would satisfy his "hierarchy of adjustive orientations" regarding physical environment, social class, culture, and interpersonal relationships.

TABLE 3

A SUMMARY OF HOLLAND'S (1959, 1966) PERSONALITY TYPES AND ENVIRONMENTAL MODELS

Personality Types* (Modal Personal Orientation)		Environmental Models* (Occupational Environments)	
Type	Description	Type	Typical Occupations
Realistic (Motoric)	Enjoys activities requiring physical strength; aggressive; good motor organization; lacks verbal and interpersonal skills; prefers concrete to abstract problems; unsociable	Realistic (Motoric)	Laborers, machine operators, aviators, farmers, truck drivers, carpenters, etc.
Intellectual	Task oriented, "thinks through" problems; attempts to organize and understand the world; enjoys ambiguous work tasks and intraceptive activities; abstract orientation	Intellectual	Physicist, anthropologist, chemist, mathematician, biologist, etc.
Social (Supportive)	Prefers teaching or therapeutic roles; likes a safe setting; possesses verbal and interpersonal skills; socially oriented; accepting of feminine impulses	Social (Supportive)	Clinical psychologist, counselor, foreign missionary, teacher, etc.
Conventional (Conforming)	Performs structured verbal and numerical activities and subordinate roles; achieves goals through conformity	Conventional (Conforming)	Cashier, statistician, bookkeeper, administrative assistant, post office clerk, etc.
Enterprising (Persuasive)	Prefers verbal skills in situations which provide opportunities for dominating, selling, or leading others	Enterprising (Persuasive)	Car salesman, auctioneer, politician, master of ceremonies, buyer, etc.
Artistic (Esthetic)	Prefers indirect personal relationships; prefers dealing with environmental problems through self-expression in artistic media	Artistic (Esthetic)	Poet, novelist, musician, sculptor, playwright, composer, stage director, etc.

* Terms within parentheses denote earlier nomenclature.

Source: Zaccaria (1970), p. 44.

NEED THEORY

Proponents of the need theory suggested a relationship between the personality development of the individual and his vocational development and choice. These theorists related need patterns of the individual to job characteristics, personality types to job types, or behavioral tendencies to job requirements. Maslow's (1954) hierarchy of needs weighed heavily in the development of the need theory. According to Maslow, low-order need had to be satisfied before the next higher order need could appear.

TABLE 4

MASLOW'S HIERARCHY OF BASIC NEEDS

1. Physiological Needs
2. Safety Needs
3. Need for Belongingness and Love
4. Need for Importance, Respect, Self-Esteem and Independence
5. Need for Information
6. Need for Understanding
7. Need for Beauty
8. Need for Self-Actualization

Anne Rowe (1957) concluded from her research with young children that early response or neglect of response to primary basic needs influenced the individual's later response to interpersonal relationships. She also tried to demonstrate a correlation between children who were people or non-people oriented to their occupational choices. Recently, Rowe (1972) acknowledged that the person or non-person orientation was less important than she had originally believed. She summarized her current theory in these eight statements:

> (1) The life story of any man and many women, written in terms of or around the occupational history, can give the essence of the person more fully than can any other approach.
>
> (2) Situations relevant to this history begin with the birth of the individual into a particular family at a particular place and time, and continue throughout his life.
>
> (3) There may be differences in the relative weights carried by different factors, but the processes of vocational decision and behavior do not differ in essence from any others.
>
> (4) The extent to which vocational decisions and behaviors are under the voluntary control of the individual is variable, but it could be more than it sometimes seems to be. Deliberate consideration of the factors involved seems to be rare.
>
> (5) The occupational life affects all other aspects of the life pattern.
>
> (6) An appropriate and satisfying vocation can be a bulwark against neurotic ills or a refuge from them. An inappropriate or unsatisfying vocation can be sharply deleterious.
>
> (7) Since the goodness of life in any social group is compounded of and also determines that of its individual members, the efforts of any society to maintain stability and at the same time advance in desired ways can perhaps be more usefully directed toward developing satisfying vocational situations for its members than any other. But unless the vocation is adequately integrated into the total life pattern, it cannot help much.
>
> (8) There is no single specific occupational slot which is a one-and-only perfect one for any individual. Conversely, there is no single person who is the only one for a particular slot. Within any occupation, there is a considerable range in a number of variables specifying the requirements (p. 80).

Hoppock (1967) made the assumption that years would elapse before enough data would have been collected to validate theories of career development and occupational choice. However, he submitted, in the interim, practitioners would need a broad base of information to serve their students and understand student behavior. He presented his theory in the form of ten postulates:

(1) Occupations are chosen to meet needs.

(2) The occupation that we choose is the one that we believe will best meet the needs that most concern us.

(3) Needs may be intellectually perceived, or they may be only vaguely felt as attractions which draw us in certain directions. In either case, they may influence choices.

(4) Vocational development begins when we first become aware that an occupation can help to meet our needs.

(5) Vocational development progresses and occupational choice improves as we become better able to anticipate how well a prospective occupation will meet our needs. Our capacity thus to anticipate depends upon our knowledge of ourselves, our knowledge of occupations, and our ability to think clearly.

(6) Information about ourselves affects occupational choice by helping us to recognize what we want and by helping us to anticipate whether or not we will be successful in collecting what the contemplated occupation offers to us.

(7) Information about occupations affects occupational choice by helping us to discover the occupations that may meet our needs and by helping us to anticipate how well-satisfied we may hope to be in one occupation as compared with another.

(8) Job satisfaction depends upon the extent to

> which the job that we hold meets the needs that we felt it should meet. The degree of satisfaction is determined by the ratio between what we have and what we want.
>
> (9) Satisfaction can result from a job which meets our needs today or from a job which promises to meet them in the future.
>
> (10) Occupational choice is always subject to change when we believe that a change will better meet our needs (pp. 111-112).

Marvin Powell and Viola Bloom (1962) strongly supported Hoppock's theory. They emphasized the fact that the most important aspect involved in career choice was having a strong base of information about specific occupations. Edward Roeber (1967) and Kenneth Hoyt (1972) also stressed the same theory, however, they, unlike Hoppock, advocated the introduction of career information and personal assessment in the earliest grades of schooling.

While he was not an advocate of any single theory of career development, Marland (1972) leaned heavily in the directions indicated by Hoppock, Roeber and Hoyt. He urged that career education programs emphasize occupational skill requirements, self-knowledge, and the analysis of their interrelationship.

GENERAL THEORIES

This category included a variety of other theories that did not fit into the previous five categories. For example, Caplow (1954) said that occupational choice might result from accidental or unforeseen factors which could not be anticipated or evaluated. He went further to state that totally unconscious forces such as sudden emotional reactions or impulses could precipitate choices.

Miller (1968) and O'Hara (1968) both related career development to learning theory. They reasoned that changes in vocational behavior were the result of cognitive changes in the individual. Their theories were based upon a knowledge of the individual's past history, current stimulus situation, and present motivational status. Manipulation of the environment by the teacher or parent thus was not only possible but could also yield predictable changes in behavior. According to Miller, this potential for control of behavioral changes was the major advantage of a learning theory approach over all the other approaches.

The essence of O'Hara's approach was that the career development of students could be facilitated by involving them in various learning situations which had occupational implications. "If we teach the students to make increasingly more adequate vocational differentiations and integrations, then...the result will be more adequate vocational responses" (p. 640).

Osipow's (1972) "social systems" or "situational" approach stressed the factors over which the individual had no control, such as environmental and hereditary factors (e.g., geographical location, sex, race), and economical status.

Crities (1969) and Herr (1970) advocated the decision theory which had heretofore been confined to the area of economics. This theory was based upon a consideration of probabilities of various courses of action. Simons (1966) attempted to point out that the literature of existential philosophy had produced a theory of career development. The central tenet of this philosophy was that career choice was the key decision in the development of the individual's personality.

The literature described many theories of career development. However, significant evidence in support of any one theory to the elimination of the others was not to be found. Each of the theories has had some impact on the educational and vocational choice processes in American schools. Each has also had some impact in the development of the numerous and diversified career education programs that have evolved across the nation in recent years.

CAREER EDUCATION PROGRAMS

> If a promising approach to education can hover for generations in the back of the classroom waiting to be discovered, career education appears to be it. If, after generations, a nation can recognize virtually overnight that its post-industrial society and the schools serving that society are ready for such an approach, this nation seems to qualify.
>
> I suspect Benjamin Franklin would have approved of career education. He advocated much the same approach, as did Plato, Lincoln, Martin Luther King and many other commentators on the human condition. The admonition to make the most of one's time and talents is a recurring theme in the history of philosophical thought.

> In his pithy way, Franklin advised the young Republic and its youthful population: "Hide not your talents; they for use were made. What's a sundial in the shade?"
>
> Speaking to Black youth two centuries later, Martin Luther King advised: "You must realize the doors of opportunity are opening now that were not opened to your mother and father...You must early discover what you were made for, and you must work indefatigably to achieve excellence in your various fields of endeavor" (Muirhead, 1973, p. 370-71).

Career education has appeared in many different ways in different parts of the country. Many programs have been patterned after the initial Federal model (see Fig. 1) advocated by Marland (1971).

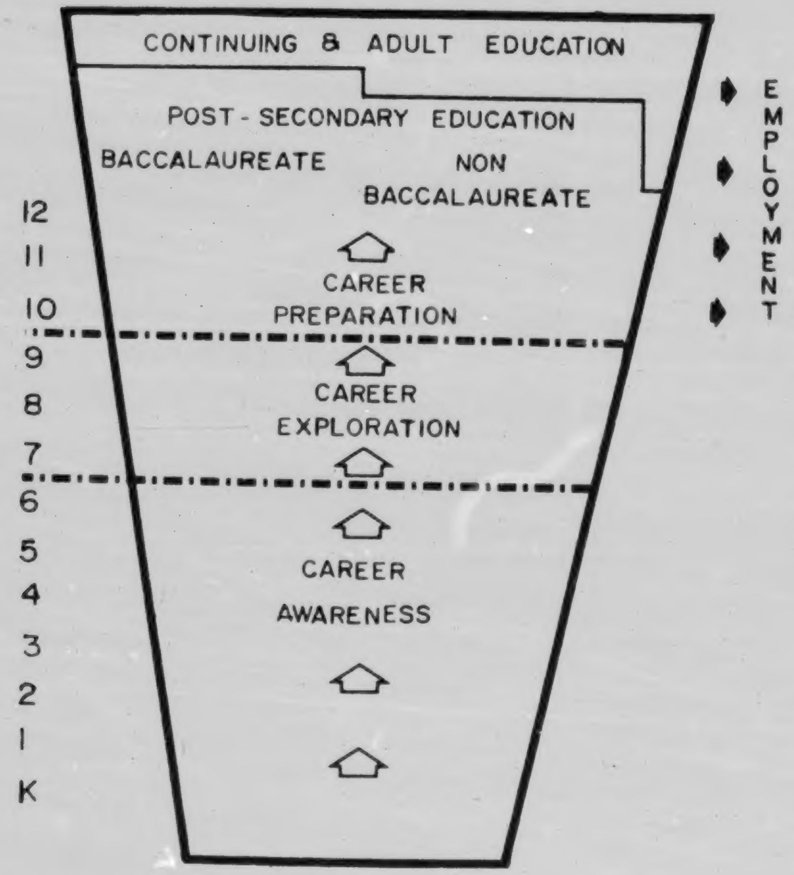

Fig. 1.--Diagram of Federal Career Education Model

Marland's program offered each child essentially the same traditional subjects and skills in elementary school plus an exposure to the world of work. In the middle grades, seven to nine, the student examined those work areas in which he was most interested through a variety of occupational clusters (see Fig. 2). By tenth grade, the student had developed job entry skills which he could utilize if he decided to leave school. If he was graduated from high school, he could enter the job market with demonstrable skills or continue his education.

The USOE has been spending millions of dollars and several years developing the goals, objectives and lesson modules for this Comprehensive Career Education Model (CCEM or Model One). The announced publication date for the materials they developed is 1976-77.

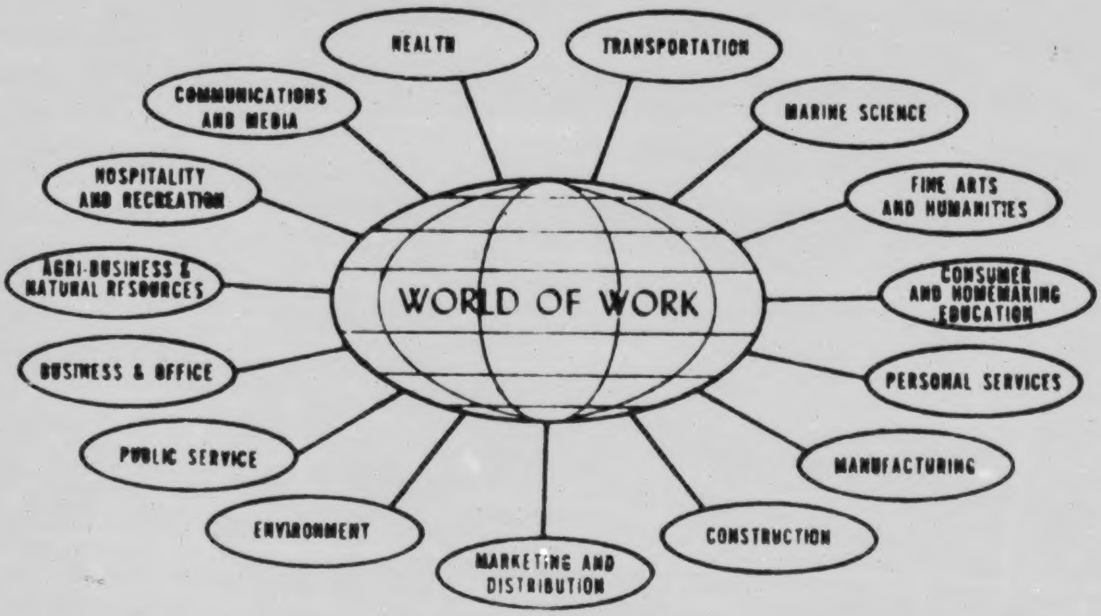

Fig. 2.--Federal Career Education Model Occupational Clusters

In describing the Federal model for the New York State Education Department, Assistant Commissioner Seckendorf (1972) added certain guidelines. He said that, by age nine, the student should be aware of and understand the concept of work, appreciate the value of work and the worker, and be familiar with the wide variety of occupations. By age twelve, he should be familiar with the occupational clusters and understand the ways of moving from one occupation to another. He should develop awareness of his own abilities, interests and aptitudes in relation to various occupations. By age fifteen, the student should assess his own potential and participate in informed decision-making regarding his educational and occupational plans. By age eighteen, every student should have chosen and planned the next steps in his occupational and educational careers.

Many school districts across the nation moved rapidly to adopt the Federal model. The public school systems of Hackensack, New Jersey; Mesa, Arizona; Atlanta, Georgia; Seattle, Washington; Pontiac, Michigan; and Los Angeles, California were some of the larger districts that accepted this approach initially.

Robert Worthington (1971) said:

> A wide variety of career development programs have sprung up throughout the nation since 1968, stimulated to a great extent by the Vocational Education Amendment Act of the same year. Their purposes and characteristics vary and overlap, but such programs usually include: (1) gaining occupational awareness; (2) gaining preliminary skills; (3) participating in career planning; (4) intensive preparation for

employment to specific vocational training (p. 34).

Different projects in the nation have taken different thrusts based, at least in part to varying extents, on the different career development theories discussed. Teachers in Mesa, Arizona and Pontiac, Michigan, for example, required that course work in social studies and science be directly related to on-site experiences in journalism, social work, x-ray technology or oceanography (Rogers, 1972). Orrin LaFerte (1973), Rhode Island Career Education Project Director, stated:

> The goal of the Rhode Island career education project is to generate an educational delivery system which fosters the development of a high level of student self-direction and decision-making skills. We feel very strongly that career education can act as the catalyst to foster a totally new approach for preparing students for survival in the modern world.

Vivian Hedrich (1971) described the Seattle public school system as having developed a program which integrated career materials into every subject of the curriculum. Elementary classes promoted awareness of the work world, while junior high students explored occupational clusters through a series of mini-courses. She claimed that this approach enabled the student to expand his concept of work and to reinforce his skills.

The Career Development for Children Project, initiated by Southern Illinois University, was designed to involve elementary school children in exercises which would facilitate vocational maturity. The goal for this project, at approximately the eighth grade level, was to have students formulate a tentative occupational preference which would help them decide what courses to take in high school.

Alton Crews (1969) stated that the two convictions basic to the career curriculum in Cobb County, Georgia were:

> Vocational education is a "mainstream" instructional program that should complement and be complemented by all regular instructional programs.
>
> Programs for vocational understanding must be an essential ingredient in the educational experience of every student if he or she is to make a wise career choice.

James Carrier (1971) claimed success for the Hancock County, Indiana Career Education Program in alleviating the dropout problem. This program was designed exclusively for students who did not succeed in the normal high school program. The curriculum centered around ten general areas: personality development; social adjustment and citizenship; moral training; character and health; occupational information; home and community life; appreciation of the arts; use of leisure time; manners and friendship; academic achievement; community work experience.

Career education in Oregon (Kunzman, 1970) revolved around occupational families with a threefold objective: to help young people (1) discover interests and abilities, (2) explore the many avenues of productive activity which might challenge and enlarge their individual talents, and (3) learn the exercises of freedom of choice, self direction, self discipline and responsibility. The career clusters in this effort included: mechanical and repair, general clerical, basic marketing, agricultural, food services, construction, secretarial, bookkeeping and accounting, electrical, social service, graphic arts, health, metal work, and wood products.

Andrew Weaver (1969) proposed that social studies in the upper elementary and junior high grades be used as the avenue to introduce students to the world of work. He suggested topics be included such as: the worker and his contribution to society; simulation games about the marketplace, life careers, and our economic system; a study of great men with emphasis on their jobs; a civic careers unit; and, finally, a stronger emphasis by vocational teachers on the social setting where work is done.

"Introduction to Careers" was an elective course available to ninth graders in North Carolina. This one year course included: (1) relating one's physical characteristics, educational experiences, aspirations, interests, aptitudes, and abilities to occupations; (2) relating the economic system to one's self and to occupations; (3) exploring manual and mechanical occupations; (4) exploring clerical, sales, and service occupations; (5) exploring professional, technical, and managerial occupations; and (6) evaluating and planning ahead.

Project ABLE in Quincy, Massachusetts, was structured around the student-controlled curriculum which involved these eleven options: business education, computer programming, electricity/electronics, food preparations, general piping, general woodworking, graphic and commercial arts, health occupations, home economics, metals and machines, and power mechanics. Career guidance elements were included in each option.

The Career Education Project in Marietta, Georgia established a "Youth Museum" with four role-playing situations for elementary school students. Classes came to the museum by appointment and participated in all four exhibits. For example, students role-played a situation depicting the telecast of a news program. To make the situation more realistic, a local television studio lent the museum cameras and other equipment that the students actually operated. The other three situations included an ecological project, a hospital, and a fire department.

Syracuse, New York and Anne Arundel County, Maryland both arrived at a similar project independent of each other. They utilized a trailer which was filled with career education equipment that elementary school students were invited to try out. The trailer was brought to a school where students entered and worked on as many as two dozen different stations, each emphasizing the skills essential to different occupations.

As this review of the literature has shown, there were numerous ways of approaching the development of a career education program. No single approach was proven to be totally effective in all circumstances; in fact, programs in smaller towns have proven to be ineffectual in big cities, and vice versa.

> As the literature attests, the challenge of developing a sound and viable program for career education is imminent. Against this background of information, a carefully planned conceptual model affords the educational decision maker the opportunity to consider viable alternatives and to implement a quality program of career education (Carter, 1972).

DELPHI TECHNIQUE

The Delphi Technique, generally attributed to Olaf Helmer, has been described as a "...succession of iterative brainstorming rounds..." (Mitchell, 1971, p. 81). Helmer originally developed the technique for the Rand Corporation to facilitate military future-forecasting. It was subsequently used in other areas of investigation, including education.

Helmer (1966) described the Delphi Technique:

> Instead of using the traditional approach toward achieving a consensus through open discussion, the Delphi Technique, in its simplest form, eliminates committee activity altogether, thus...reducing the influence of certain psychological factors, such as specious persuasion, the unwillingness to abandon publicly expressed opinions, and the bandwagon effect of majority opinion (p. 1).

The *Herald Magazine* (1972), Toffler (1972), Cyphert & Gant (1971), and Mitchell (1971) all described variations of the use of the technique. Mitchell summarized their descriptions:

> The iterative characteristic is attributable to the fact that after the viewpoints of individual experts are obtained, they are aggregated with the viewpoints of the other experts. After aggregation, each expert, still in isolation from the other participants, is presented with the aggregated results and asked if he would alter any of the predictions" (p.81).

The major difference with other consensus-forming techniques lay in the fact that Delphi participants were kept separate from each other. In this way, each was influenced by the results of each round of responses but not by the person or persons responding.

The purpose of the feedback of data and the request for re-analysis was cited by Weaver (1971) as:

> ...the rephrasing or complexity of a question, or the influence of a group norm, even though it may be anonymous, may influence the judgements of certain people (p. 270)

and by Helmer (1966) as:

> The effect of placing the onus of justifying relatively extreme positions on the respondents had the effect of causing those without strong convictions to move their estimates closer to the median, while those who felt they had a good argument for a deviationist opinion tended to retain their original estimate and defend it (pp. 2-3).

Weaver (1971) reported on studies using the Delphi Technique in Virginia and Ohio. He stated that most of the change in priorities occurred after the first reporting back of responses. Subsequent rounds failed to produce any significant changes.

Helmer (1966) and Toffler (1972) advocated the value of the Delphi Technique even if no clear-cut consensus was achieved. They claimed that, even in that situation, the technique produced a narrowing of the original spread of opinions and a crystallization of the "...reasoning process, leading to one or several positions on an issue and thus helping to clarify it..." (Helmer, 1966, p. 4).

> I can state from my own experience, and also from the experience of many other practitioners, that the results of a Delphi exercise are subject to greater acceptance on the part of the group than are the consensuses arrived at by more direct forms of interaction (MacMillan, 1971, p. 17).

> In conclusion, besides giving the satisfaction of planning the future with the assistance of data, this survey made the influential persons in the commonwealth aware of the school's existence and gave them a vested interest in its future accomplishments (Cyphert & Gant, 1971, p. 273).

SUMMARY

Many career education programs have been established in different school districts across the nation. Each program claimed its degree of success and relevancy based on one or more schools of thought regarding career development, generally referred to as the Trait and Factor Theory, the Developmental Theory, the Psychoanalytic Theory, the Personality Theory, the Need Theory, or the General (unclassified) Theory. Yet no theory or career education program has been proven conclusively to be the "right" apprach. The literature stressed the need, even urgency, of continued research and model development.

In numerous cases where the Delphi Technique was used, it generally narrowed the range of responses and usually achieved consensus on the issues surveyed. The accuracy of Delphi consensus came closer to the mark than any other group technique. Tangentially, the Delphi Technique has been shown to be effective in crystallizing the reasoning process, creating awareness of educational programs and generating commitment to those programs.

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CHAPTER THREE

RESEARCH METHODOLOGY

The purpose of this study was to develop a K-14 conceptual career education model for the public school system of Yonkers, New York, and for other school districts which were similarly constructed and concerned. It was decided that this model should reflect the attitudes and concerns of the professional staff, students, parents and business people.

A survey instrument was developed for use by the Delphi Technique in sampling the populations described. The results of the Delphi survey were analyzed as to attitudes evidenced and consensus of opinion on those attitudes.

A conceptual career education model was generated which reflected the results of the study.

HYPOTHESES

1. The population studied, and its component subgroups, see a need for a sequential program in career education for the public schools.

2. The population studied, and its component subgroups, will approach a consensus on the major areas of career education that should be taught in the public schools.

3. The Delphi Technique will be effective in the

achievement of consensus within the sample studied.

4. A conceptual career education model reflecting community consensus can be constructed.

SAMPLE SELECTION

The size and diversity of the population of the City of Yonkers and its public schools, and the constraints established by the USOE and the New York State Education Department, mandated that three of the the component subgroups of the study be chosen from elementary schools 19, 26, 27, and 32. The community subgroup was chosen from the city-at-large.

1. All professional staff in the four pilot schools were surveyed.

2. All fifth grade students in the four pilot schools were surveyed. Fifth grade students were chosen because they represented the oldest students in the four schools and therefore could be expected to make more reasoned responses than the younger students.

3. All parents of fifth grade students in the four pilot schools were surveyed.

4. All members present at a randomly selected meeting of the four business groups in the City of Yonkers (i.e., the Chamber of Commerce, Rotary Club, Lions Club, and Kiwanis) were surveyed.

The initial round of the Delphi Technique sampled more than 900 persons, thus reflecting a representative and adequate sample of the professional and non-professional community concerned with the implementation of a career education program. Each component of the community thereby had an opportunity to express its attitudes and concerns prior to the development of a definitive model.

COLLECTION OF DATA

Before a conceptual career education model reflecting wide concerns and attitudes could be developed, a survey instrument had to be designed to assess those concerns and attitudes. The Career Education Project staff generated a list of items which questioned people's reactions to a wide variety of concepts and approaches. These items were written by the staff based upon discussions held and information about similar studies gleaned from the literature and personal experience. The staff wrote each item twice: once for an adult respondent, and once for a student in grade five.

The research design and the bases for the model development were discussed at length with a Central Office Review Team which consisted of those administrators who had the major role in the development and utilization of instructional strategies in the public schools (i.e., Assistant Directors, Directors, and the Assistant Superintendent of Schools for Instruction). The final strategy was agreed upon at this meeting and a preliminary pair of instruments was written by the Project staff to reflect same.

The preliminary surveys were pre-tested with the faculty and students of Yonkers Prep, one of the public high schools in Yonkers. The final instruments were drawn up to reflect the suggestions made in this pre-test.

The professional subgroup was surveyed each time by delivering the instruments to the four school principals who distributed them to their faculties (e.g., at a faculty meeting) and then re-collected them and sent them to the Project office.

The student surveys were conducted in their classrooms by their teachers. The instruments were delivered to the teachers with instructions on their administration and collection. The four principals served as the delivery and collection agents.

The parent surveys were delivered to all fifth grade teachers in the sample schools by their principals. A pair of instruments were contained in an envelope which the teacher gave to each student in class. Instructions in the envelope invited one or both parents to respond and instructed them to return the instruments in the envelope via their child and his teacher. The fifth grade teachers daily urged their students to encourage their parents to return the envelopes. All returned envelopes were collected by the four principals and sent to the Project office.

The business subgroup surveys were delivered at a randomly chosen meeting by the Project Director or his designee upon prior agreement with the president of the organization involved. Each survey had instructions and a stamped, addressed return envelope to be used by the respondents.

Project staff, building principals, fifth grade teachers, and organization presidents regularly reminded their constituents to return the surveys. Instruments were coded for group identification (e.g., parent, student, Rotary Club, Kiwanis, School 19, School 32, etc.).

ANALYSIS OF DATA

Upon receipt of the instruments in the first round, an analysis was conducted to determine the mean response for each of the thirty-five items. Advice on the operation of the Delphi Technique had been gotten from Dr. Rodney Reed, Center for Research and Development in Higher Education, University of California at Berkeley. Based upon this advice and the analysis of the results of the first round, a second pair of instruments was printed. These instruments contained the original thirty-five items and also showed the mean response for each. They did not show the respondent's ranking of the items on the first round. The respondents were asked to examine the indicated means and to determine if they agreed or disagreed with them. If they disagreed, they were instructed to designate those rankings which they preferred and to state their reasons for disagreement.

Data accumulated was analyzed to determine the distribution of responses per item and the convergence towards consensus as compared with the first round. In addition, an independent analysis of attitudes evidenced on the first round was prepared by Policy Studies in Education, a private educational research group, and is contained in Appendix C. This analysis was conducted as part of Policy Studies in Education's role as the external formative evaluator of the project.

SUMMARY

After identifying the sample populations of professional staff, students, parents and business people, a survey instrument was developed to determine their attitudes and concerns regarding a career education program in the public schools. Two administrations of the survey, the second reflecting the mean results of the first, were analyzed as to mean responses, distribution of responses, and convergence on consensus between rounds. In addition, an independent analysis of attitudes evidenced on the first instrument was conducted as part of an external formative evaluation of the project.

CHAPTER FOUR

ANALYSIS OF THE DATA

The purpose of this study was to attempt to achieve a broad based consensus as to the main thrusts of a conceptual career education model for the public schools of Yonkers, New York. Two rounds of surveys were conducted within the structure of the Delphi Technique in the quest to achieve this consensus.

The data accumulated in the surveys is presented and analyzed in this chapter and utilized as the basis for the model proposed.

CONSENSUS

Table 5 shows the subgroups that were surveyed in both rounds of the Delphi Technique and the frequency of responses from all subgroups as well as the total sample.

Although 550 parent surveys were distributed on the first round, the records of the teachers whose classes were polled showed that a maximum of 412 responses could be expected. This was due to the fact that there were numerous siblings surveyed, and many students had only one parent at home.

In all, sixty-six per cent responded to the first survey, and seventy-three per cent responded to the second.

TABLE 5

FREQUENCY OF RESPONSE TO FIRST AND SECOND ROUND SURVEYS

	First Round		Second Round			
Subgroup	Number	Proportion of Sample	Number	Proportion of Sample	Increase or Decrease	Per cent Difference between Rounds
TOTAL SAMPLE	601	100%	440	100%		
Professional	80	13.3	60	13.6	+0.3	+2.2
Students	200	33.3	160	36.4	+3.1	+9.3
Parents	230	38.3	156	35.5	-2.8	-7.3
Business	91	15.1	64	14.5	-0.6	-4.0
School 19	78	13.0	64	14.5	+1.5	+11.5
School 26	168	28.0	126	28.6	+0.6	+2.1
School 27	118	19.6	77	17.5	-2.1	-10.7
School 32	146	24.3	109	24.8	+0.5	+2.1

Since the subgroups collectively reflect a satisfactory stratified sample of the diverse population of the City of Yonkers, and since the proportions of the subgroups as related to the total responses for each round are significantly the same (i.e., a percentage difference between rounds of less than twenty per cent was regarded as insignificant), the results were shown to be unbiased for this sample with respect for the variables being studied.

To simplify the figures and tables that follow, the survey items are indicated by their numbers rather than the statements themselves. The paired items (i.e., the adult and student forms) and their corresponding numbers are as follows:

1. Schools are doing enough to help students plan their future careers.
   School teaches me enough to plan for my future.

2. Career education should be part of the curriculum in all grades.
   Students in all grades should learn about many kinds of jobs.

3. Our schools encourage a student to think for himself/herself.
   In school, I learn how to think for myself.

4. School experiences should help students to understand that their interests can be a basis for career planning.
   I would like to know how the things I like to do can help me to earn money.

5. Actual work experience can have great educational value for all students.
   I would learn a lot about people's jobs if I could help them do it.

6. Most high school graduates are not prepared to enter the working world.
   Most students are not ready to get a job after they graduate from high school.

7. Schools over-emphasize useless facts at the expense of practical skills.
   Teachers spend too much time on facts and not enough time teaching us how to do things.

8. The success of new programs in a school is greatly influenced by the principal's commitment to them.
   Principals should help teachers when they teach new things.

9. Field trips and work experiences will be more beneficial if the teacher incorporates them into the curriculum.
   Field trips can help me understand what I study in school.

10. Curriculum should make students aware of the physical and intellectual skills needed for various jobs.

10. School should show what skills are needed to do different jobs.

11. A field trip can be as worthwhile as an afternoon spent in class.
I can learn as much from a field trip as from an afternoon spent in class.

12. Schools would do a better job if they taught students the necessary skills for coping with adult life.
Things I learn in school should help me when I grow up.

13. The elementary grades are a proper time to introduce students to career possibilities.
I should begin learning about jobs right now.

14. School curriculum should make students aware of the many different careers that are available.
In school, I would like to learn about as many jobs as I can.

15. Women must choose between having a career or raising a family.
Girls must choose between getting a job and raising a family.

16. The top priority of schools should be to educate children so that they can make decisions intelligently.
The most important thing for me to learn in school is how to make my own decisions.

17. Students learn enough about jobs in vocational education courses.
High school shop and home economics will teach me enough about jobs.

18. Teaching about career opportunities should be the responsibility of parents alone.
Only my parents should teach me about what I can be when I grow up.

19. One of the goals of career education should be to prepare students to become economically capable of standing on their own two feet.
School should teach me to be able to support myself.

20. Providing students with career information should be the responsibility of the guidance department only.
Only guidance counselors should tell me about jobs.

21. High school students should graduate with sufficient skills to get a decent job.
Students should be able to get a job when they graduate from high school.

22. While learning about career opportunities, students should see people performing their jobs.
I would like to watch people work so that I can learn about their jobs.

23. Work habits such as punctuality and reliability should be stressed in the school program.
Learning to hand in my homework on time will help teach me good work habits.

24. Both boys and girls should learn how to hang a picture and wash a shirt.
Both boys and girls should know how to hang up a picture and wash a shirt.

25. School programs providing information about job opportunities are not necessary for college bound students.
Learning about jobs is not important for students who are planning to go to college.

26. Career education is another name for vocational education.
Career education is another name for shop and home economics.

27. Schools have not done enough to promote a student's sense of responsibility.
School is not teaching me how to be responsible.

28. Schools should protect children from the realities of life.
I'm too young to think about when I will be grown up.

29. There are many more career opportunities than most people are aware of.
There are many jobs that I don't know about.

30. Teaching children how to use tools and machines is a waste of taxpayers' money.
Learning how to use tools in school is a waste of my parents' money.

31. Teaching students about the world of work can be done in a one semester high school course.
Students can learn all about jobs in one special course in high school.

32. Career information is not important for students whose parents already know what they want their children to be.
Learning about different jobs is not important if your parents know what you should be.

33. Most people are not happy at their jobs.
Most grown-ups are not happy in their jobs.

34. Students should have a career goal by the time they leave high school.
Students should know what they want to be when they leave high school.

35. The best way to find out about a person's job is to ask him/her.
The best way to find out about people's jobs is to ask them.

Figure 3 shows the median and interquartile dispersions for each of the thirty-five statements in the survey as computed for the entire sample. The results of the first round are depicted in the upper graph and the results of the second round in the lower graph.

Since the research design was to attempt to reach consensus for the total sample, Figure 3 does not reflect the results of the individual subgroups, nor does it assign different weights to any of the subgroups. Two major points were clearly seen from this figure:

(1) The extent of the dispersion for each statement was markedly reduced in the second round, demonstrating movement towards consensus.

(2) The number of statements for which the dispersion crossed from agree to disagree (clearly demonstrating no consensus) was reduced by 83.3 per cent, again demonstrating

movement towards consensus.

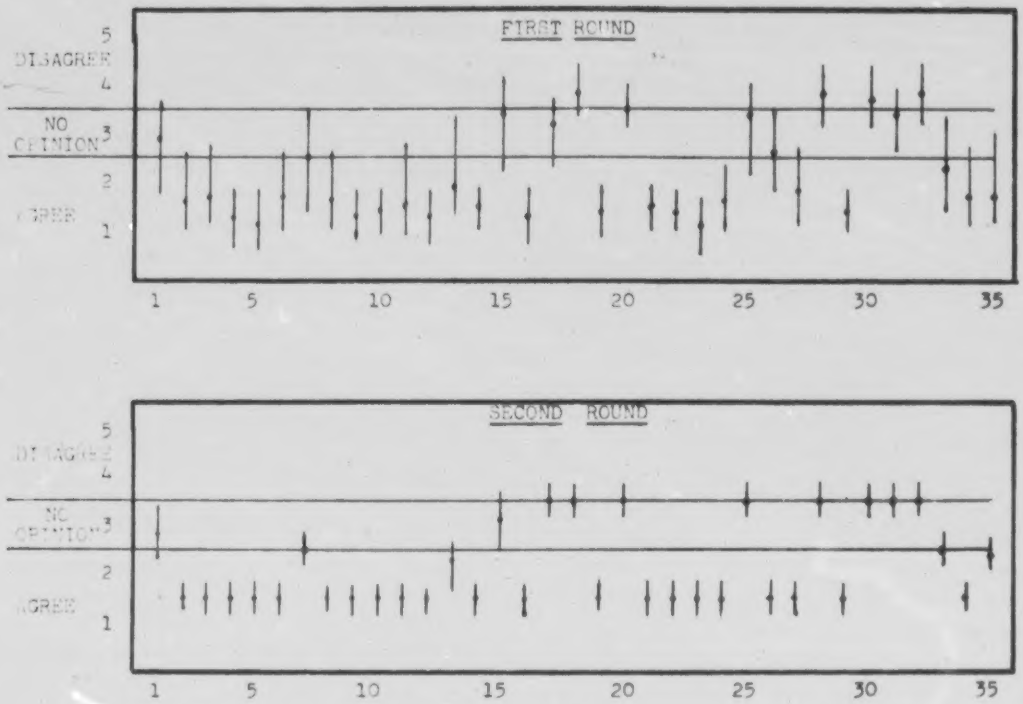

Fig. 3. Medians and Interquartile Dispersions of Responses to Thirty-Five Statements on the First and Second Rounds of the Delphi Technique

Figure 3 also shows that there are six statements in the first round whose median response was in the "No Opinion" category. On the second round, this was reduced to only two statements. Clearly, the second round encouraged respondents to make commitments that they did not make on the first round.

Table 6 shows that the average range of dispersions for the thirty-five statements was considerably reduced in the second round for the total sample population and also for each of the four subgroups (professional staff, students, parents, and business). A reduction in the dispersion range was also indicative of movement towards consensus. The quantification of this movement is clearly visualized in Figure 4.

TABLE 6

AVERAGE DISPERSION RANGE OF RESPONSES ON THE FIRST AND SECOND ROUNDS OF THE DELPHI TECHNIQUE

Subgroup	Average Dispersion Range	
	First Round	Second Round
Total Sample	1.7	0.6
Professional Staff	1.2	0.6
Students	1.7	0.6
Parents	1.2	0.6
Business	1.2	0.6

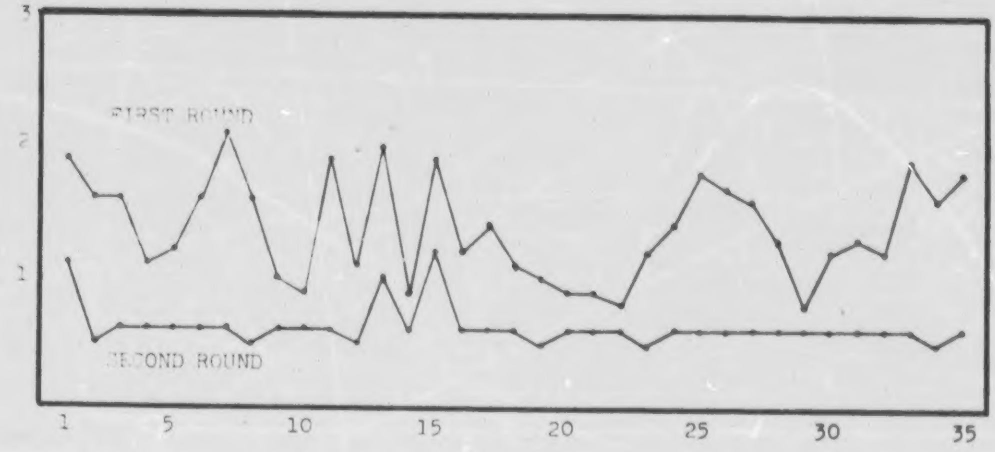

Fig. 4. Comparison of the Range of Interquartile Dispersions of Responses to Thirty-Five Statements on the First and Second Rounds of the Delphi Technique

For purposes of this study, and because broad based consensus was demonstrated to be of significant importance to the development of the model, consensus was deemed to have been achieved when eighty-five per cent or more of the respondents were in agreement. On the first round, only six statements reached this plateau (item numbers four, five, nine, eighteen, twenty-two, and twenty-three). However, the second round's tabulation showed that thirty-two statements achieved consensus. Figure 5 shows this accomplishment.

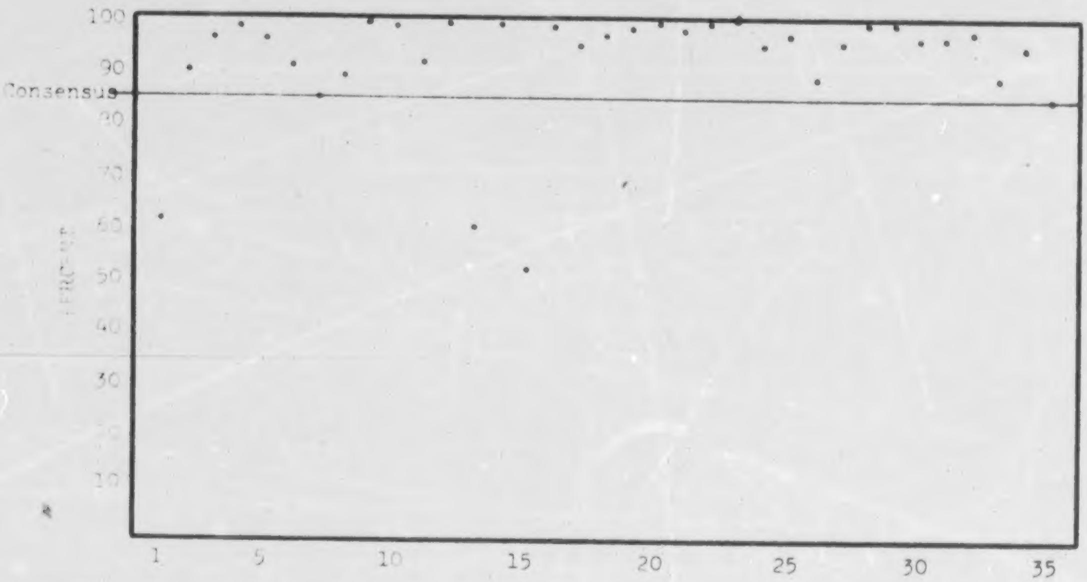

Fig. 5. Percent of Respondents in Agreement with the Modal Response to Each of Thirty-Five Statements on the Second Round of the Delphi Technique

It was interesting to reflect on the statements that showed no consensus after the second round. Statement # one read: "Schools are doing enough to help students plan their future careers." On the first round, thirty-two per cent were in agreement with the statement; by the second round, only four per cent agreed. Initially, forty-eight per cent disagreed; on the re-poll, this dropped to thirty-five per cent. While both mean and median moved squarely into the "No Opinion" column, it was obvious that the dissenters were more reluctant to relinquish their position than the assenters. The resultant sixty-one per cent with "No Opinion" and thirty-five per cent in disagreement represented a significant indictment against the schools in the area of student preparation for future careers.

Some of the comments written on the second survey in regard to statement number one are enlightening. One parent wrote: "If that were so, there wouldn't be so many confused kids after high school." A businessman put it this way:

> From my experience, most vocational guidance comes too late and too little and becomes merely a game of to which college can the youngster expect to be admitted?

A teacher assessed the situation by writing: "Probably the greatest cause of frustration and wasted schooling is a lack of a sense of direction." However, one fifth grade student seemed happy with the situation and wrote: "I just think schools teach enough to plan my future."

Statement # thirteen said: "The elementary grades are a proper time to introduce students to career possibilities." Round one showed that fifty-three per cent agreed with the statement while thirty-three per cent disagreed and fifteen per cent had "No Opinion". The shift in round two was heavily into the "No Opinion" column and away from the area of disagreement: sixty per cent expressed "No Opinion", only seven per cent held on to their disagreement, and thirty-three per cent stuck to their agreement. Clearly, this showed much confusion as to the proper location of career education in the curriculum. It undoubtedly reflected the great deal of confusion as to the concepts and premises of a career education program. It pointed up the need for a major effort not only to infuse career education in the classroom but also to clearly explain what it's all about to the community.

While there was obvious disagreement on statement # thirteen, the few illuminating comments fell into two categories. One student put it this way: "Elementary school is when you learn the three r's." A parent stated: "They are too young to worry about that now and until they learn more facts and figures." However, a staff member disagreed: "Children need to know that they don't have to follow in mommy's and daddy's footsteps." These three comments clearly showed the lack of understanding of the nature of a career education program on the elementary level.

Statement # fifteen, the last of the statements that did not achieve consensus, read: "Women must choose between having a career or raising a family." On the first round, twenty-three per cent supported that position; by the second round, only three per cent were left. Initially, sixty-three per cent rejected the statement but this dropped to fifty-two per cent in the second round. The "No Opinion" respondents increased from fourteen per cent to forty-five per cent. Part of this was undoubtedly due to a flaw in the Technique itself. While only fourteen per cent of the first round respondents reflected "No Opinion", the second round survey had to show that as the mean response. This was due to the fact that the calculation of the arithmetic mean was based upon weighted responses (i.e., the number of responses for each category multiplied by the number assigned to each category) and came to 3.4. The range from 2.5 to 3.5 was the "No Opinion" range.

In spite of this, the majority rejected the concept with insignificant opposition. The results, however, indicated that any career education program must consciously deal with the problem of sexism in school and society and must heavily involve the community in this dialogue.

One parent rejected statement # fifteen by writing:

> There need not be a choice. Options re choice, combination, etc. should be left to the individual and are dependent upon many variables, individual circumstances, etc. Otherwise, we perpetuate archaic, obsolete patterns of sex discrimination and inhibit full growth and development of the individual.

A teacher summarized her feelings in this brief caption: "Surely this myth is finally being shattered.'

Figures 6, 7, 8, and 9 depict the reduction in the range of interquartile dispersions for the thirty-five statements on the second round as compared with the first. This reduction, demonstrated for each of the four subgroups, was indicative of consensus achievement.

These four figures demonstrate significant movement towards consensus. In the first round, the dispersion was as much as sixty per cent across the scale in some instances. The maximum range on the second round was less than half that.

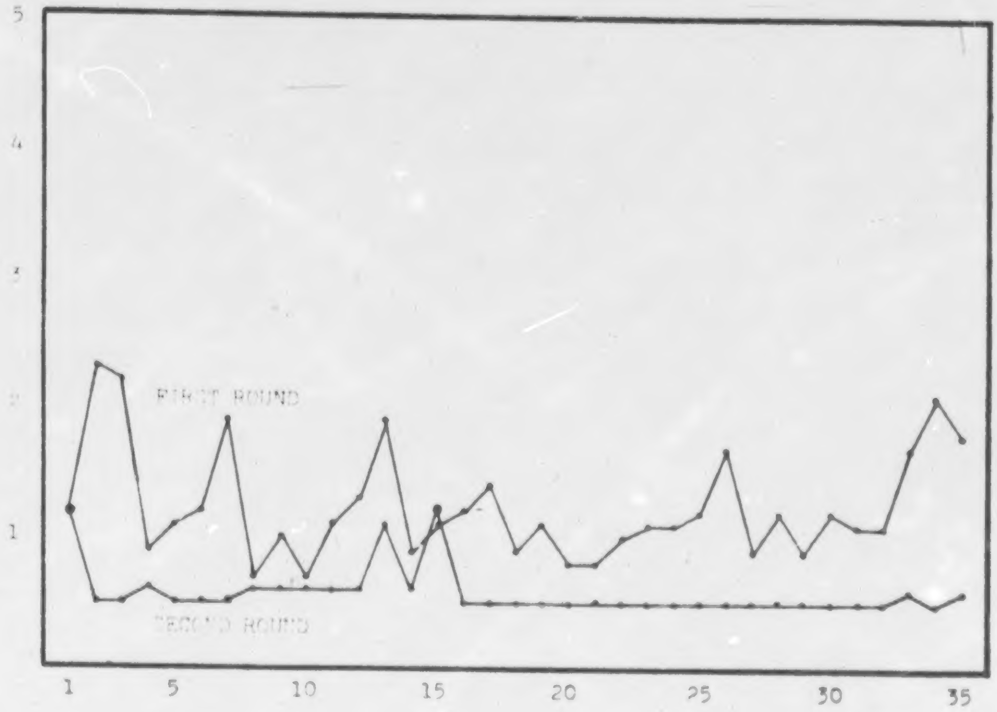

Fig. 6. Comparison of the Range of Interquartile Dispersions of Responses to Thirty-Five Statements on the First and Second Rourds of the Delphi Technique as Registered by Professional Members of the Sample Population

The student and business subgroups moved towards consensus on each item. The parent subgroup accomplished this for all but one item, and the staff subgroup for all but two items. This significant movement and the achievement of consensus on thirty-two of thirty-five items was deemed sufficient for the development of the conceptual career education model.

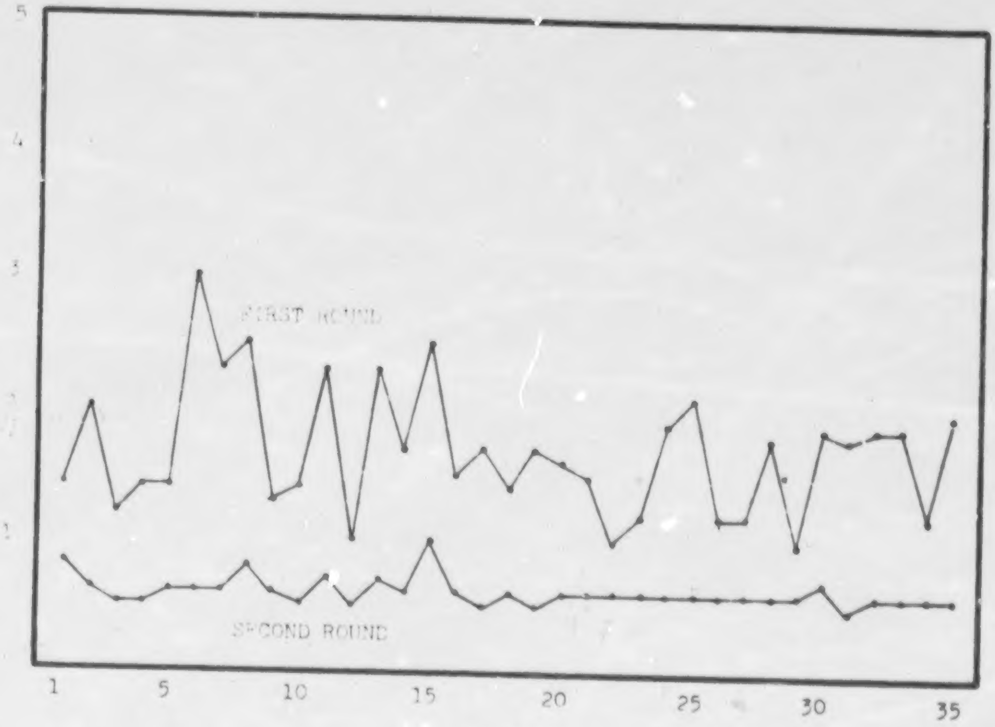

Fig. 7. Comparison of the Range of Interquartile Dispersions of Responses to Thirty-Five Statements on the First and Second Rounds of the Delphi Technique as Registered by Student Members of the Sample Population

It is again interesting to point out that there were only three instances among the four subgroups wherein the range of dispersion was not reduced significantly. Two of these instances appeared in the results of the professional staff (Figure 6) and the third in the results of the parents (Figure 8). Statement # one, on which the total sample population did not achieve consensus, represented a similar problem for both the staff and the parents. The dispersion range for the former subgroup did not decrease at all, and for the latter subgroup, it actually increased. This showed not only a failure to reach consensus but also an increase in disagreement.

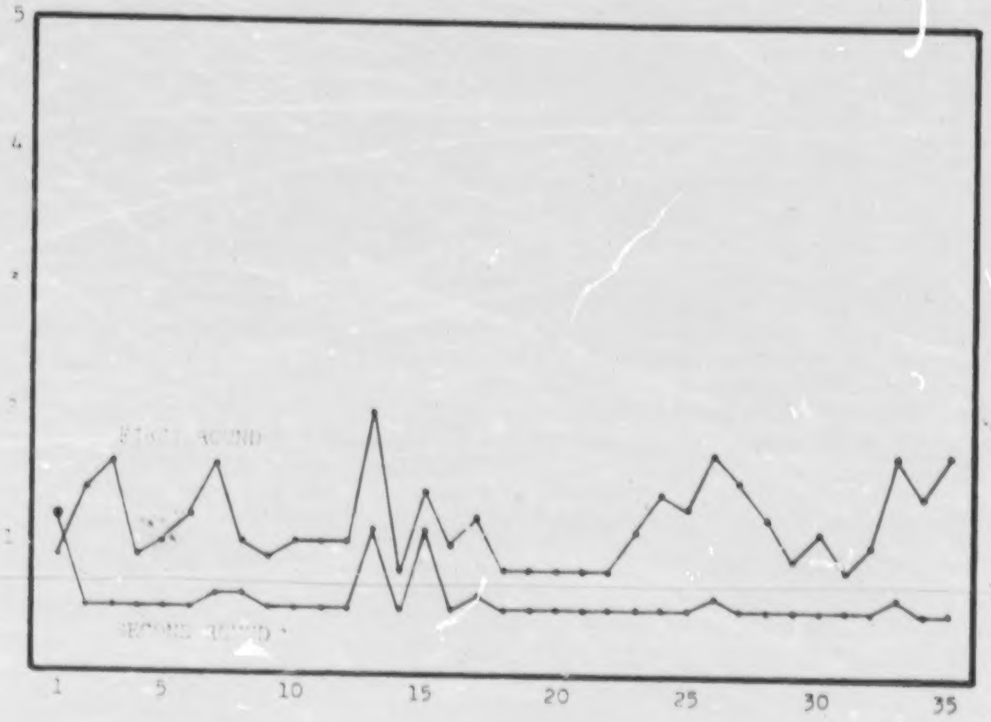

Fig. 8. Comparison of the Range of Interquartile Dispersions of Responses to Thirty-Five Statements on the First and Second Rounds of the Delphi Technique as Registered by Parent Members of the Sample Population

Statement # fifteen which dealt with whether or not women must choose between having a career or raising a family represented a problem for the staff similar to that reflected in the total sample population's results. The staff was not able to achieve a consensus on this item; the dispersion range actually increased in round two by a small amount.

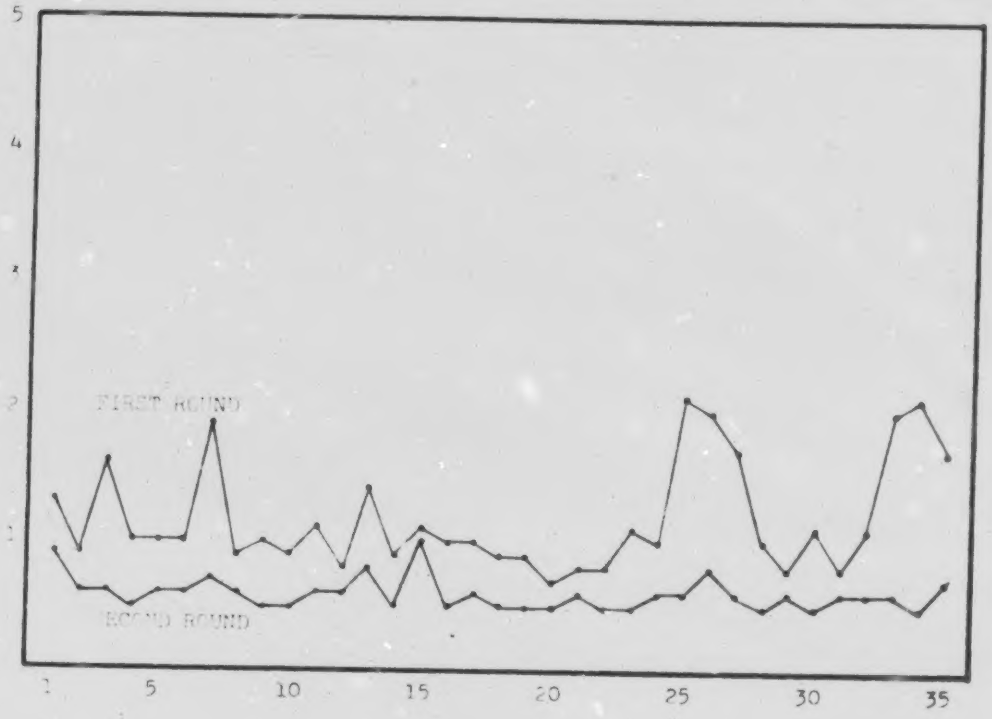

Fig. 9. Comparison of the Range of Interquartile Dispersions of Responses to Thirty-Five Statements on the First and Second Rounds of the Delphi Technique as Registered by Business Members of the Sample Population

ATTITUDES AND CONCERNS

The results of this survey demonstrated strong attitudes, concerns and commitment to the concepts contained in the thirty-five survey statements. For clarity of analysis, these statements have been grouped into five categories: Awareness, Development, Competence, Core, and Responsibility.

AWARENESS

Table 7 shows the degree of acceptance or rejection for eight of the thirty-five statements which were categorized here.

TABLE 7

SAMPLE POPULATION SUPPORT FOR AWARENESS STATEMENTS

Number	Statement	PERCENT Agree	No Opinion	Disagree
26	Career Education is another name for vocational education.	4	89	7
22	There are many more career opportunities than most people are aware of.	99	1	
14	School curriculum should make students aware of the many different careers that are available.	99	1	
10	Curriculum should make students aware of the physical and intellectual skills needed for jobs.	98	1	1
4	School experiences should help students to understand that their interests can be a basis for career planning.	98	1	1
33	Most people are not happy at their jobs.	7	89	4
35	The best way to find out about a person's job is to ask him/her.	13	85	2
11	A field trip can be as worthwhile as an afternoon spent in class.	92	3	5

N = 440 respondents
Responses are expressed in percentages.

Statement # twenty-six clearly showed that there was great confusion as to what career education is all about. Most respondents were so unclear that they were unwilling to take a position. As previously stated, a concerted effort to clarify the role and importance of career education must be a primary task.

The respondents were almost unanimous in their acknowledgement of the fact that there were many more career opportunities available than most people knew existed or had any conception of prerequisites. They strongly believed that the schools should clear away this fog and should help students relate their interests to this new information.

There was no agreement as to whether workers liked their jobs. This was an area that required investigation and clarification.

The sample group was uncommitted as regards asking people about their jobs but felt overwhelmingly that field trips were worthwhile. There was, perhaps, a contradiction in these two responses since one aspect of a field trip would certainly be to see what workers do and to ask them about their work.

DEVELOPMENT

Ninty-five per cent of the respondents felt that vocational education alone did not provide enought knowledge about jobs. However, they did not feel that vocational education was inappropriate; ninty-seven per cent endorsed the kinds of experiences developed in vocational education courses.

The respondents almost unanimously agreed that students should be exposed to the real world of work and they endorsed on-site visitations and actual work experience. In further support of this endorsement, they rejected the idea that college-bound students did not need information about job opportunities.

TABLE 8

SAMPLE POPULATION SUPPORT FOR DEVELOPMENT STATEMENTS

Number	Statement	PERCENT Agree	 No Opinion	 Disagree
17	Students learn enough about jobs in vocational education courses.	2	3	95
19	Teaching children how to use tools is a waste of taxpayers' money.	2	1	97
20	While learning about career opportunities, students should see people performing their jobs.	99	1	
27	School programs providing information about job opportunities are not necessary for college-bound students.	2	1	97
28	Schools should protect children from the realities of life.	1		99
3	Actual work experiences can have great educational value for all students.	96	2	2

N = 440 respondents
Responses are expressed in percentages.

COMPETENCE

The sample population had very strong ideas about the role of the schools and the resultant products. They clearly believed that schools should equip students with what they needed in order to graduate from high school with discernible career goals. They stated also that high school graduates should have sufficient skills upon graduation to get a decent job; however, they acknowledged that this was not the case at this point in time.

Ninty-eight per cent went beyond skill development and job competency. They stated that career education should develop economic competency as well. While ninty-five per cent supported the concept that sex roles should be broken down so that both males and females learned and became competent at skills that had, in the past, been assigned primarily to one sex or the other, the sample could not develop a consensus on the role of women as regards career and family. The results of these two statements again demonstrated the inability of the group to fully develop and accept a concept that was alien to their experience although acceptable to their intellect.

TABLE 9

SAMPLE POPULATION SUPPORT FOR COMPETENCE STATEMENTS

Number	Statement	PERCENT Agree	 No Opinion	 Disagree
34	Students should have a career goal by the time they leave high school.	95	2	3
21	High school students should graduate with sufficient skills to get a decent job.	98	1	1
6	Most high school graduates are not prepared to enter the working world.	91	4	5
19	One of the goals of career education should be to prepare students to become economically capable of standing on their own two feet.	98	1	1
15	Women must choose between having a career or raising a family.	3	45	52
24	Both boys and girls should learn to hang a picture and wash a shirt.	95	3	2

N = 440 respondents
Responses are expressed in percentages.

CORE

This category included statements that went to the "core" of the issue, such as: where and when should career education be taught; who should teach career education; what besides information and specific skills should be included?

While ninty per cent believed that career education should be taught in all grades, only thirty-three per cent endorsed it for elementary schools. This was still another example of the group's failure to unite a concept acceptable to them with a reality that differed from their experience. The point was further demonstrated by their overwhelming rejection of a one semester high school course as the vehicle for teaching students about the world of work. Table 10 shows the contradiction.

Ninty-eight per cent stated that the prime function of the schools should be to teach children how to make intelligent decisions. Apparently, they felt that the schools have been doing a good job in this area for ninty-six per cent agreed that the school do encourage students to think for themselves.

The results were not entirely positive about the effectiveness of the schools. The respondents felt that the schools have not done their job in promoting the students' sense of responsibility and in developing skills necessary for coping with adult life. In addition, they felt that work habits such as punctuality and reliability should be stressed, thereby implying another school deficiency.

TABLE 10

SAMPLE POPULATION SUPPORT FOR CORE STATEMENTS

Number	Statement	PERCENT Agree	 No Opinion	 Disagree
2	Career education should be part of the curriculum in all grades.	90	1	9
11	The elementary school grades are a proper time to introduce students to career possibilities.	33	60	7
31	Teaching students about the world of work can be done in a one semester high school course.	1	2	97
3	Our schools encourage a student to think for himself/herself.	96	1	3
16	The top priority of schools should be to educate children so that they can make decisions intelligently.	98	1	1
12	Schools would do a better job if they taught students the necessary skills for coping with adult life.	99		1
23	Work habits such as punctuality and reliability should be stressed in the school program.	100		
27	Schools have not done enough to promote a student's sense of responsibility.	96	2	2

N = 440 respondents
Responses are expressed in percentages.

RESPONSIBILITY

This last category dealt with not only the responsibility of the schools as a whole but also with individual responsibilities as well. Table 11 shows confusion as to whether or not the schools have been doing their job. The majority of the respondents had no opinion about how well the schools were helping youngsters plan their future careers. They also were unclear about the balance between fact learning and skill development.

TABLE 11

SAMPLE POPULATION SUPPORT FOR RESPONSIBILITY STATEMENTS

Number	Statement	PERCENT Agree	 No Opinion	 Disagree
1	Schools are doing enough to help students plan their future careers.	4	61	35
7	School over-emphasize useless facts at the expense of practical skills.	8	85	7
20	Providing students with career information should be the responsibility of the guidance department only.	1		99
18	Teaching about career opportunities should be the responsibility of parents alone.	2	1	97
32	Career information is not important for students whose parents already know what they want their children to be.		2	98
3	The success of new programs in a school is greatly influenced by the principal's commitment to them.	89	2	9
[illegible]	Field trips and work experiences will be more beneficial if the teacher incorporates them into the curriculum.	99	1	

N = 440 respondents
Responses are expressed in percentages.

The confusion about the effectiveness of the schools was not at all evident when the group voted whether all students should learn about careers and who should teach them. Ninty-eight per cent declared career information as important for all students regardless of parental plans. Similar numbers refused to relegate this important instruction to only one person or group of people (e.g., parents or counselors). Clearly, the study showed that career education is the responsibility of all and is important to all.

Finally, the respondents assigned a greater measure of responsibility to teachers and principals. The vast majority stated that the degree of the principal's commitment to the program will greatly influence its success. They went on to advise teachers that career education activities would be more valuable if they were incorporated into the curriculum rather than utilized as frills or addenda.

DEMOGRAPHIC COMPARISON

Although tangential to the main thrusts of this study, a comparison of the final evaluations of the thirty-five statements by the four schools in the study was deemed interesting and is presented in Table 12. It should be remembered that School 19 represented and inner city elementary school, Schools 27 and 32 represented middle class schools, and School 26 represented an upper middle class to upper class school.

In almost every case, each of the four schools were in agreement with the results of the total sample population. It was interesting to note that there were only three items on which the individual schools were not in agreement; there three items were the same three items on which the total sample population was unable to achieve consensus. The items involved were statements # one, thirteen, and fifteen. In each case, one school deviated from the other three.

TABLE 12

DEMOGRAPHIC COMPARISON OF MODAL RESPONSES ON THE SECOND ROUND OF DELPHI TECHNIQUE SURVEYS

Statement Number	School 19 (N = 64)	School 26 (N = 126)	School 27 (N = 77)	School 32 (N = 109)
1	NO: 61%	NO: 68%	D: 55%	NO: 61%
2	A: 94%	A: 87%	A: 95%	A: 83%
3	A: 98%	A: 96%	A: 99%	A: 97%
4	A: 99%	A: 94%	A: 100%	A: 100%
5	A: 89%	A: 96%	A: 98%	A: 97%
6	A: 94%	A: 88%	A: 87%	A: 93%
7	NO: 86%	NO: 83%	NO: 87%	NO: 87%
8	A: 91%	A: 89%	A: 90%	A: 82%
9	A: 99%	A: 98%	A: 97%	A: 100%
10	A: 95%	A: 97%	A: 100%	A: 96%
11	A: 83%	A: 92%	A: 92%	A: 93%
12	A: 92%	A: 99%	A: 100%	A: 100%
13	NO: 63%	NO: 73%	A: 52%	NO: 52%
14	A: 99%	A: 98%	A: 100%	A: 99%
15	NO: 56%	D: 51%	D: 53%	D: 57%
16	A: 92%	A: 98%	A: 100%	A: 99%
17	D: 86%	D: 95%	D: 99%	D: 98%
18	D: 86%	D: 98%	D: 99%	D: 100%
19	A: 98%	A: 98%	A: 96%	A: 99%
20	D: 95%	D: 99%	D: 100%	D: 99%
21	A: 97%	A: 98%	A: 98%	A: 98%
22	A: 97%	A: 99%	A: 99%	A: 99%
23	A: 100%	A: 99%	A: 99%	A: 100%
24	A: 99%	A: 91%	A: 96%	A: 97%
25	D: 88%	D: 99%	D: 98%	D: 99%
26	NO: 89%	NO: 94%	NO: 91%	NO: 92%
27	A: 98%	A: 98%	A: 95%	A: 95%
28	D: 95%	D: 98%	D: 100%	D: 99%
29	A: 95%	A: 99%	A: 98%	A: 100%
30	D: 94%	D: 97%	D: 97%	D: 97%
31	D: 88%	D: 99%	D: 96%	D: 98%
32	D: 89%	D: 100%	D: 100%	D: 98%
33	NO: 88%	NO: 94%	NO: 87%	NO: 90%
34	A: 94%	A: 96%	A: 92%	A: 100%
35	NO: 83%	NO: 87%	NO: 84%	NO: 88%

Respondents in each school included professional staff, students and parents.

A: Agree NO: No Opinion D: Disagree

Schools 19, 26, and 32 had a modal response reflecting a clear majority in the "No Opinion" category for statement # one. This was consistent with the results of the total sample group. However, School 27's mode (fifty-five per cent) was in the "Disagree" category. The "No Opinion" response for this school included forty-four per cent of their respondents. Therefore, no startling or significant conclusions could be drawn from this disparity.

School 27 also deviated from the other schools and the total group on statement # thirteen. School 27 registered fifty-two per cent in the "Agree" category while the others had their majorities in the "No Opinion" category. However, forty-five per cent of School 27's respondents voted "No Opinion", so no significant deviation could be noted here either.

For statement # fifteen, School 19 registered fifty-six per cent in the "No Opinion" category while the other schools agreed with the total group by a small majority in the "Disagree" area. Since School 19 included thirty-nine per cent of its respondents in the "Disagree" category, its deviation from the rest of the sample was deemed as being insignificant.

An examination of the responses of the second round by subgroup (e.g., professional staff, students, parents, and business people) failed to disclose any striking differences from the results obtained earlier by the total group or the schools. Table 13 demonstrates this.

TABLE 13

SUBGROUP COMPARISON OF MODAL RESPONSES ON THE SECOND ROUND OF DELPHI TECHNIQUE SURVEYS

Statement Number	Staff (N = 60)	Students (N = 180)	Parents (N = 136)	Business (N = 64)
1	D: 53%	NO: 70%	NO: 51%	NO: 65%
2	A: 95%	A: 81%	A: 96%	A: 95%
3	A: 93%	A: 100%	A: 94%	A: 91%
4	A: 99%	A: 96%	A: 100%	A: 100%
5	A: 100%	A: 91%	A: 100%	A: 97%
6	A: 100%	A: 80%	A: 99%	A: 97%
7	NO: 97%	NO: 84%	NO: 85%	NO: 77%
8	A: 99%	A: 74%	A: 99%	A: 99%
9	A: 100%	A: 97%	A: 100%	A: 100%
10	A: 100%	A: 94%	A: 100%	A: 100%
11	A: 99%	A: 81%	A: 100%	A: 99%
12	A: 99%	A: 98%	A: 100%	A: 98%
13	NO: 52%	NO: 68%	NO: 51%	NO: 66%
14	A: 100%	A: 97%	A: 100%	A: 100%
15	D: 72%	NO: 60%	D: 65%	D: 59%
16	A: 97%	A: 97%	A: 98%	A: 99%
17	D: 100	D: 91%	D: 99%	D: 99%
18	D: 100%	D: 93%	D: 100%	D: 100%
19	A: 100%	A: 96%	A: 99%	A: 100%
20	D: 100%	D: 98%	D: 99%	D: 100%
21	A: 99%	A: 97%	A: 98%	A: 99%
22	A: 100%	A: 97%	A: 100%	A: 100%
23	A: 100%	A: 99%	A: 99%	A: 100%
24	A: 100%	A: 92%	A: 98%	A: 95%
25	D: 100%	D: 93%	D: 100%	D: 97%
26	NO: 90%	NO: 93%	NO: 91%	NO: 70%
27	A: 90%	A: 98%	A: 98%	A: 92%
28	D: 100%	D: 97%	D: 100%	D: 100%
29	A: 100%	A: 97%	A: 99%	A: 99%
30	D: 100%	D: 92%	D: 100%	D: 99%
31	D: 100%	D: 92%	D: 100%	D: 100%
32	D: 100%	D: 95%	D: 100%	D: 100%
33	NO: 92%	NO: 89%	NO: 91%	NO: 80%
34	A: 92%	A: 96%	A: 98%	A: 89%
35	NO: 88%	NO: 83%	NO: 90%	NO: 75%

A: Agree NO: No Opinion D: Disagree

SUMMARY

Two rounds of surveys were utilized via the Delphi Technique to determine if consensus could be achieved among professional staff, students, parents, and business people as to the main thrusts of a conceptual career education model for the public schools of Yonkers, New York. Analysis of the results showed that definite consensus had been achieved on thirty-two of the thirty-five statements in the survey.

Further analysis showed that there were no significant differences in the positions taken by the four subgroups or the four schools in the survey.

One business person's survey contained the following eloquent summary of his thoughts:

> If the schools were doing enough to help the young person to think for himself, why are there so many young people incapable of making decisions? Many are educated but are at a total loss when placed in vocational positions. Others go from job to job, show no incentive, and look only for the monies being paid to them. They should be taught that you get from life only what you put into it. However, this is not totally the fault of the educational system. Parents and society must play their part leading the young down the proper paths.

Areas of confusion, agreement, concern, and need were identified, as were prevalent attitudes towards career education and its impact. This data was used in the development of the conceptual model contained in Chapter Five.

CHAPTER FIVE

GENERAL CONCLUSIONS AND CONCEPTUAL MODEL DEVELOPMENT

The purpose of this study was to ascertain whether or not a broad based consensus could be achieved regarding the basic premises of a conceptual career education model for implementation in the public school system of Yonkers, New York. Members of the professional staff, students, parents and representatives of business were polled using the Delphi Technique in order to discern those attitudes, concerns and needs upon which they could agree. A thirty-five statement survey was used twice in order to obtain this information; the second survey reported the means achieved on the prior administration of the instrument.

The results of the second survey showed that a consensus had, in fact, been obtained on thirty-two of the statements. The sample population indicated strongly that they perceived a need for career education throughout all grades and for all students. They agreed that career education concepts and activities should be integrated or infused into all levels of education and not be added simply as another subject. They supported the concept that teachers actively move to infuse career education into their courses and that administrators take a conscious role in its implementation. They further urged that the community as a whole take a significant part in the development and evolution of this program by making their facilities and expertise available to students.

Four hypotheses were utilized to structure this research. Each of the hypotheses was confirmed, based upon the data accumulated.

Hypothesis one stated: "The population studied, and its component subgroups, sees a need for a sequential program in career education for the public schools." The evidence heavily substatiated this statement. The population studied strongly supported the concept of such a career education program.

Hypothesis two stated: "The population studied, and its component subgroups, will approach a consensus on the major areas of career education that should be taught in the public schools." The data again supported this hypothesis. Clear-cut consensus was reached by the total group on thirty-two of thirty-five statements. Each of the subgroups achieved results that were at least as good. The three items which did not reach consensus demonstrated a general confusion of terms and ideas, and basic social inadequacy of information bases and actualization.

Hypothesis three stated: "The Delphi Technique will be effective in achieving consensus within the sample studied." As previously shown, consensus was achieved on most of the statements (91.4 per cent, to be precise), thereby demonstrating the effectiveness of the Delphi Technique.

Hypothesis four stated: "A career education model reflecting community consensus can be constructed." Based upon the fact that basic consensus was achieved and combined with an analysis of the prime concerns reflected in that consensus, this study has attempted to construct that conceptual career education model.

A CONCEPTUAL CAREER EDUCATION MODEL

Analysis of the attitudes expressed in the survey has yielded these basic goal statements for the model:

1. Achieve an increased awareness of self and society.
2. Develop positive attitudes toward self, school, life and work.
3. Demonstrate understanding of responsibility, both personal and social.
4. Achieve competence in decision-making.
5. Understand the significant roles that education and experience play in preparation for life.
6. Understand the world of work and its impact on self and society.
7. Demonstrate basic career skills necessary to pursue personal life goals.

Combining these student goal statements with the continual, sequential nature of the program endorsed by the study has yielded the model presented in Figure 10.

CAREER EDUCATION

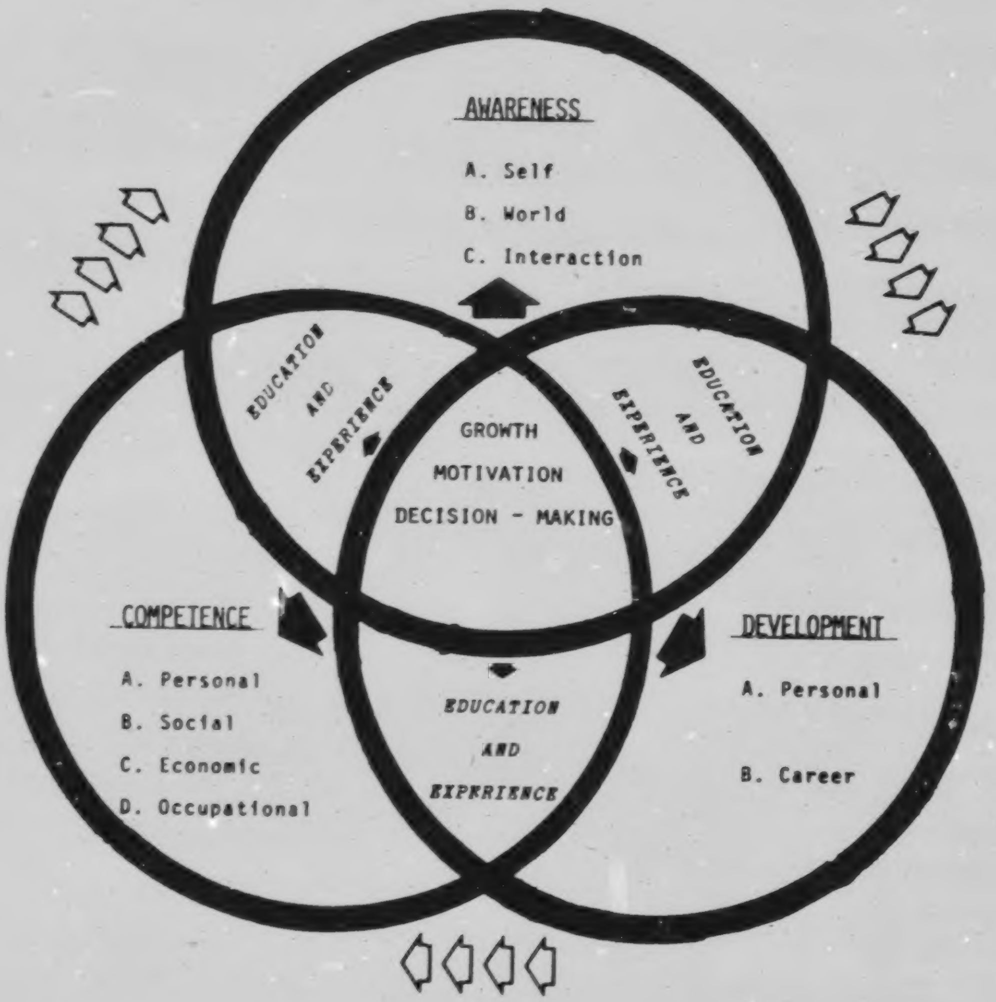

Fig. 10. Conceptual Career Education Model

This model views all individuals, from womb to tomb, as developing human beings who continually go through the phases of awareness, development and competence. Each person can be located in different areas of the model in relation to different aspects of himself. He continually becomes aware of new things and facts; he decides whether or not to pursue this new awareness. If he decides in the affirmative, he develops new knowledge and skills in his pursuit. If the motivation is sufficient, he becomes competent in this new area. Often, this new competency awakens new awareness and the cycle repeats itself. Education and experience are the "glue" which holds it all together and, at the same time, the "grease" which allows the movement. Motivation, growth and decision-making are the hub around which it all pivots.

Awareness is seen as composed of three broad areas: Awareness of Self, Awareness of the World, and the Interaction of both of these. Self Awareness breaks down into these components:

1. Uniqueness
    a) Needs
    b) Interests
    c) Capabilities
    d) Limitations
    e) Potential
2. Similarities
    a) Cultural

        - b) Societal
        - c) Economic
        - d) Political
        - e) Physical
        - f) Needs
    3. Goals

World Awareness includes:

1. Roles in:
    - a) Family
    - b) Community
    - c) Society
2. Cultural
    - a) Social
    - b) Economic
        - (1) Problems
        - (2) Alternatives
        - (3) Specific Applications

The Interaction between Self Awareness and World Awareness encompasses:

1. Life Hypotheses
2. Testing Alternatives
3. Evaluations
4. Goals

The Development circle is visualized as composed of two interrelated segments, each of which breaks down into three broad areas:

PERSONAL:

1. Physical
    - a) Motor Skills
    - b) Health Information
    - c) Evaluation of Physical Abilities
2. Intellectual
    - a) Knowledge Base
    - b) Critical Thinking
3. Emotional
    - a) Recognition
    - b) Coping
    - c) Application

CAREER:

1. Interests
    - a) Personal
    - b) Career
    - c) Interrelation
2. Information
    - a) Clusters
    - b) Trends
    - c) Planning
3. Skills
    - a) Occupational Family
    - b) Occupational Group
    - c) Job
    - d) Interchangeability

As one develops, one achieves levels of competency. The Competence circle has the broad areas of Personal, Social, Economic and Occupational. Personal includes:

1. Self-Assessment
2. Perception of Reality
3. Decision-Making

The Social component is concerned with:

1. Understanding
2. Communication
3. Cooperation

Economic Competence involves:

1. Choosing a Career Pattern
2. Economic Independence
3. Consumerism

Finally, the Occupational Competence component encompasses:

1. Pursuing a Career Pattern
2. Work Habits
3. Attitudes
4. Skills
5. Goal Achievement.

Obviously, this conceptual model is not a dressed up version of vocational education. It includes much of the latter, but it goes well beyond it. Many of the model's components can be seen as restatements of goals found in other areas of education. It was intended to be so, Career education is viewed herein as the core of the educational program. Career education is only viable if it permeates and penetrates the classrooms and teachings of every grade and every subject on a regular basis. Much of what this model advocates is already being done in effective classrooms. What is being advocated here is that career education be an ongoing, regular component of every curriculum, taught by every teacher, to every student.

This model attempts to bring into clear focus the concerns identified in the study and to express them in such a way as to make obvious to every teacher, on every level, in every subject, that she can infuse these concepts into her regular curriculum. It is not advocated herein that every concept be brought into every level of learning. Rather, the concepts are enumerated so that the classroom teacher, in conjunction with other teachers and administrators, can identify those most pertinent and applicable to her students for infusion into her daily teaching.

RECOMMENDATIONS

1. In order for any program to have any degree of success, it must constantly undergo formative evaluation. This involves the selection of a knowledgeable group of people who must continually know what should be happening, what already happened, what is happening, and what alternatives are available.

2. Pilot schools should be utilized for the introduction of the model and its evolution in those schools should be monitored and evaluated. Dissemination of activities should follow piloting efforts and be predicated upon successful utilization.

3. Inservice programs should be conducted for administrators, teachers, counselors, librarians, community people, etc. The purpose of these workshops should be to familiarize them with the concepts and activities of career education as envisioned in this model and to obtain their feedback. These inservice programs should evolve with the model and should continually seek to update the model and participants' effectiveness based upon the formative evaluations.

4. Panels of educators should be assembled to develop specific behavioral objectives based upon the model and tailored to the developmental levels of different age children. These objectives should be developed in conjunction with existent objectives within the school district as articulated by the Superintendent in the areas of reading and subject matter.

5. Instruments should be developed for use with students to assess the effectiveness of the program.

6. Community committees should be established to facilitate the acquisition of knowledge and experience by students as regards job requirements, skills, duties, values, and satisfaction.

As a follow-up to this study, each and every recommendation made has been actualized. The results of the findings developed therein will be used to improve the model on an ongoing basis.

SUMMARY

The purpose of this study was to attempt to reach consensus among educators, students, parents and businessmen as to the prime thrusts of a career education program for the public schools of Yonkers, New York. The purpose was also to develop a conceptual model for that program based upon the findings of surveys conducted within the Delphi Technique.

The data showed that significant consensus was achieved after two rounds of surveys. The major ideas, attitudes and concerns identified in the consensus were used as the basis for developing the conceptual model proposed herein.

Piloting efforts have begun in the four schools used in the survey and initial dissemination activities based upon the efforts of the pilot schools have started. An ongoing, formative evaluation has been inaugurated and is under the supervision of Policy Studies in Education, a national educational consultant firm which advised the USOE on its career education efforts.

Inservice programs have been developed for administrators, teachers, counselors, etc. and the first efforts in this vein have commenced. One of the workshops to evolve from this inservice program is geared to the development of behavioral objectives tailored to this model and the developmental levels of students. Evaluative instruments are to be used to test the effectiveness of activities developed.

A regular community-career education dialogue has been established to provide feedback to the program staff on efforts generated and to provide a clearinghouse through which community-school activities can grow in a coordinated manner.

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APPENDICES

APPENDIX A

BOARD OF EDUCATION
145 PALMER ROAD
YONKERS, N. Y. 10701
TELEPHONE 914-963-4567

ROBERT F. ALIOTO
SUPERINTENDENT OF SCHOOLS

CURRICULUM DEPARTMENT

Dear Friend:

The Board of Education is asking your help in developing a new Career Education program here in Yonkers. It is important for us to know your opinions so that we can plan the best possible program for our students.

Please take five or ten minutes of your time to complete this survey. Your responses will be carefully considered. When you have completed the survey, please return it in the enclosed envelope.

Thank you for your cooperation.

Very truly yours,

Leonard I Fintzy
Director of Career Education

Directions: **Please read each statement carefully. There are no right or wrong answers. Just check the box which best describes how you feel about each statement.**		**Strongly Agree** 1	**Agree** 2	**No Opinion** 3	**Disagree** 4	**Strongly Disagree** 5
Schools are doing enough to help students plan their future careers.	1					
Career education should be part of the curriculum in all grades.	2					
Our schools encourage a student to think for himself/herself.	3					
School experiences should help students to understand that their interests can be a basis for career planning.	4					
Actual work experience can have great educational value for all students.	5					
Most high school graduates are not prepared to enter the working world.	6					
Schools over-emphasize useless facts at the expense of practical skills.	7					
The success of new programs in a school is greatly influenced by the principal's commitment to them.	8					
Field trips and work experiences will be more beneficial if the teacher incorporates them into the curriculum.	9					
Curriculum should make students aware of the physical and intellectual skills needed for various jobs.	10					
A field trip can be as worthwhile as an afternoon spent in class.	11					
Schools would do a better job if they taught students the necessary skills for coping with adult life.	12					
The elementary school grades are a proper time to introduce students to career possibilities.	13					
School curriculum should make students aware of the many different careers that are available.	14					
Women must choose between having a career or raising a family.	15					
The top priority of schools should be to educate children so that they can make decisions intelligently.	16					
Students learn enough about jobs in vocational education courses.	17					
Teaching about career opportunities should be the responsibility of parents alone.	18					

		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
One of the goals of career education should be to prepare students to become economically capable of standing on their own two feet.	19					
Providing students with career information should be the responsibility of the guidance department only.	20					
High school students should graduate with sufficient skills to get a decent job.	21					
While learning about career opportunities, students should see people performing their jobs.	22					
Work habits such as punctuality and reliability should be stressed in the school program.	23					
Both boys and girls should learn how to hang a picture and wash a shirt.	24					
School programs providing information about job opportunities are not necessary for college bound students.	25					
Career education is another name for vocational education.	26					
Schools have not done enough to promote a student's sense of responsibility.	27					
Schools should protect children from the realities of life.	28					
There are many more career opportunities than most people are aware of.	29					
Teaching children how to use tools and machines in the schools is a waste of taxpayers' money.	30					
Teaching students about the world of work can be done in a one semester high school course.	31					
Career information is not important for students whose parents already know what they want their children to be.	32					
Most people are not happy at their jobs.	33					
Students should have a career goal by the time they leave high school.	34					
The best way to find out about a person's job is to ask him/her.	35					

IF YOU HAVE ANY SUGGESTIONS THAT YOU
THINK MIGHT HELP US, PLEASE FEEL
FREE TO WRITE THEM BELOW.

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BOARD OF EDUCATION
145 PALMER ROAD
YONKERS, N. Y. 10701
TELEPHONE 914-963-4567

ROBERT F. ALIOTO
SUPERINTENDENT OF SCHOOLS

CURRICULUM DEPARTMENT

Dear Student:

The Board of Education is asking your help in developing a new Career Education program here in Yonkers. It is important for us to know your opinions so that we can plan the best possible program for our students.

Please take five or ten minutes of your time to complete this survey. Your responses will be carefully considered. When you have completed the survey, please return it in the enclosed envelope.

Thank you for your cooperation.

Very truly yours,

Leonard I Fintzy
Director of Career Education

Directions: **Please read each statement carefully. There are no right or wrong answers. Just check the box which best describes how you feel about each statement.**		**Strongly Agree** 1	**Agree** 2	**No Opinion** 3	**Disagree** 4	**Strongly Disagree** 5
School teaches me enough to plan for my future.	1					
Students in all grades should learn about many kinds of jobs.	2					
In school, I learn how to think for myself.	3					
I would like to know how the things I like to do can help me to earn money.	4					
I would learn a lot about people's jobs if I could help them do it.	5					
Most students are not ready to get a job after they graduate from high school.	6					
Teachers spend too much time on facts and not enough time teaching us how to do things.	7					
Principals should help teachers when they teach new things.	8					
Field trips can help me understand what I study in school.	9					
School should show what skills are needed to do different jobs.	10					
I can learn as much from a field trip as from an afternoon spent in class.	11					
Things I learn in school should help me when I grow up.	12					
I should begin learning about jobs right now.	13					
In school, I would like to learn about as many jobs as I can.	14					
Girls must choose between getting a job and raising a family.	15					
The most important thing for me to learn in school is how to make my own decisions.	16					
High school shop and home economics will teach us enough about jobs.	17					
Only my parents should teach me about what I can be when I grow up.	18					

		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
School should teach me to be able to support myself.	19					
Only guidance counselors should tell me about jobs.	20					
Students should be able to get a job when they graduate from high school.	21					
I would like to watch people work so that I can learn about their jobs.	22					
Learning to hand in my homework on time will help teach me good work habits.	23					
Both boys and girls should know how to hang up a picture and wash a shirt.	24					
Learning about jobs is not important for students who are planning to go to college.	25					
Career education is another name for shop and home economics.	26					
School is teaching me how to be responsible.	27					
I'm too young to think about when I will be grown up.	28					
There are many jobs that I don't know about.	29					
Learning how to use tools in school is a waste of my parents' money.	30					
Students can learn all about jobs in one special course in high school.	31					
Learning about different jobs is not important if your parents know what you should be.	32					
Most grown-ups are not happy in their jobs.	33					
Students should know what they want to be when they leave high school.	34					
The best way to find out about people's jobs is to ask them.	35					

IF YOU HAVE ANY SUGGESTIONS THAT YOU THINK MIGHT HELP US, PLEASE FEEL FREE TO WRITE THEM BELOW.

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APPENDIX B

AREER EDUCATION

2 McLean Avenue | Board of Education | Yonkers, New York 10705

Project VEA CO 73-C-292 (CG)

EONARD I. FINTZY
Director

This survey is being given to more than 900 persons. Over 600 of those people responded to the first survey.

The process of developing the Yonkers Career Education Program model is called the Delphi Technique. Essentially, this technique accomplishes the same thing as having all the people involved attend a large meeting and vote on each statement until a majority vote for all 35 statements is reached.

Obviously, it would be very difficult to get so many people to such a meeting. Therefore, we have decided to use the Delphi Technique which requires 2 or more similar surveys to be given to the same group of people.

The second survey, now being conducted, tells you the same information as a preliminary vote at a meeting. Now you are asked to react to that information. If you agree with it, you don't have to do anything. If you disagree, you indicate your disagreement and the reason for it.

All the information on the second survey will be tabulated and, if substantial concensus has been reached, the process will be completed. If there is still a good deal of disagreement, a third survey will be conducted which will show the results of the second and ask you to react again.

If you have any questions about the Delphi Technique or the survey, please call my office (963-4567, ext. 396, 397).

BOARD OF EDUCATION
145 PALMER ROAD
YONKERS, N. Y. 10701
TELEPHONE 914-[illegible]-4567

ROBERT F. ALIOTO
SUPERINTENDENT OF SCHOOLS

CURRICULUM DEPARTMENT

January, 1974

Dear Friend:

Thank you for your cooperation in our first Career Education survey. As we promised, the results of that survey are inside for your information: the mean (average) response for each statement is marked by an asterisk (*).

In light of this additional information, please study each item again. If you decide that the response marked by the * does not represent your opinion now, please mark the box that does represent your opinion AND give a brief reason for your disagreement on the last page. If you do substantially agree with the response marked by the *, do not write anything.

Once again, thank you for helping us develop the Yonkers Career Education Program.

Completed surveys should be returned within a week by using the attached stamped, addressed envelope.

Very truly yours,

Leonard I Fintzy,
Career Education Director

Directions: Please read each statement carefully. There are no right or wrong answers. Just check the box which best describes how you feel about each statement.	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Schools are doing enough to help students plan their future careers. 1			*		
Career education should be part of the curriculum in all grades. 2		*			
Our schools encourage a student to think for himself/herself. 3		*			
School experiences should help students to understand that their interests can be a basis for career planning. 4		*			
Actual work experience can have great educational value for all students. 5		*			
Most high school graduates are not prepared to enter the working world. 6		*			
Schools over-emphasize useless facts at the expense of practical skills. 7			*		
The success of new programs in a school is greatly influenced by the principal's commitment to them. 8		*			
Field trips and work experiences will be more beneficial if the teacher incorporates them into the curriculum. 9		*			
Curriculum should make students aware of the physical and intellectual skills needed for various jobs. 10		*			
A field trip can be as worthwhile as an afternoon spent in class. 11		*			
Schools would do a better job if they taught students the necessary skills for coping with adult life. 12		*			
The elementary school grades are a proper time to introduce students to career possibilities. 13			*		
School curriculum should make students aware of the many different careers that are available. 14		*			
Women must choose between having a career or raising a family. 15			*		
The top priority of schools should be to educate children so that they can make decisions intelligently. 16		*			
Students learn enough about jobs in vocational education courses. 17				*	
Teaching about career opportunities should be the responsibility of parents alone. 13				*	

BEST COPY AVAILABLE

		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
One of the goals of career education should be to prepare students to become economically capable of standing on their own two feet.	19		*			
Providing students with career information should be the responsibility of the guidance department only.	20				*	
High school students should graduate with sufficient skills to get a decent job.	21		*			
While learning about career opportunities, students should see people performing their jobs.	22		*			
Work habits such as punctuality and reliability should be stressed in the school program.	23		*			
Both boys and girls should learn how to hang a picture and wash a shirt.	24		*			
School programs providing information about job opportunities are not necessary for college bound students.	25				*	
Career education is another name for vocational education.	26			*		
Schools have not done enough to promote a student's sense of responsibility.	27		*			
Schools should protect children from the realities of life.	28				*	
There are many more career opportunities than most people are aware of.	29		*			
Teaching children how to use tools and machines in the schools is a waste of taxpayers' money.	30				*	
Teaching students about the world of work can be done in a one semester high school course.	31				*	
Career information is not important for students whose parents already know what they want their children to be.	32				*	
Most people are not happy at their jobs.	33			*		
Students should have a career goal by the time they leave high school.	34		*			
The best way to find out about a person's job is to ask him/her.	35			*		

BEST COPY AVAILABLE

ITEM #	REASON FOR DISAGREEMENT WITH MEAN RESPONSE (*)

BOARD OF EDUCATION
145 PALMER ROAD
YONKERS, N. Y. 10701
TELEPHONE 914 [illegible]

ROBERT F. ALIOTO
SUPERINTENDENT OF SCHOOLS

CURRICULUM DEPARTMENT

January, 1974

Dear Student:

Thank you for your cooperation in our first Career Education survey. As we promised, the results of that survey are inside for your information: the mean (average) response for each statement is marked by an asterisk (*).

In light of this additional information, please study each item again. If you decide that the response marked bu the * does not represent your opinion now, please mark the box that does represent your opinion AND give a brief reason for your disagreement on the last page. If you do substantially agree with the response marked by the *, do not write anything.

Once again, thank you for helping us develop the Yonkers Career Education Program.

Completed surveys should be returned immediately to your teacher.

Very truly yours,

Leonard I Fintzy,
Career Education Director

BEST COPY AVAILABLE

Directions Please read each statement carefully. There are no right or wrong answers. Just check the box which best describes how you feel about each statement.		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
School teaches me enough to plan for my future.	1			*		
Students in all grades should learn about many kinds of jobs.	2		*			
In school, I learn how to think for myself.	3		*			
I would like to know how the things I like to do can help me to earn money.	4		*			
I would learn a lot about people's jobs if I could help them do it.	5		*			
Most students are not ready to get a job after they graduate from high school.	6		*			
Teachers spend too much time on facts and not enough time teaching us how to do things.	7			*		
Principals should help teachers when they teach new things.	8		*			
Field trips can help me understand what I study in school.	9		*			
School should show what skills are needed to do different jobs.	10		*			
I can learn as much from a field trip as from an afternoon spent in class.	11		*			
Things I learn in school should help me when I grow up.	12		*			
I should begin learning about jobs right now.	13			*		
In school, I would like to learn about as many jobs as I can.	14		*			
Girls must choose between getting a job and raising a family.	15			*		
The most important thing for me to learn in school is how to make my own decisions.	16		*			
High school shop and home economics will teach us enough about jobs.	17				*	
Only my parents should teach me about what I can be when I grow up.	18				*	

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	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
School should teach me to be able to support myself. 19		*			
Only guidance counselors should tell me about jobs. 20				*	
Students should be able to get a job when they graduate from high school. 21		*			
I would like to watch people work so that I can learn about their jobs. 22		*			
Learning to hand in my homework on time will help teach me good work habits. 23		*			
Both boys and girls should know how to hang up a picture and wash a shirt. 24		*			
Learning about jobs is not important for students who are planning to go to college. 25				*	
Career education is another name for shop and home economics. 26			*		
School is teaching me how to be responsible. 27		*			
I'm too young to think about when I will be grown up. 28				*	
There are many jobs that I don't know about. 29		*			
Learning how to use tools in school is a waste of my parents' money. 30				*	
Students can learn all about jobs in one special course in high school. 31				*	
Learning about different jobs is not important if your parents know what you should be. 32				*	
Most grown-ups are not happy in their jobs. 33			*		
Students should know what they want to be when they leave high school. 34		*			
The best way to find out about people's jobs is to ask them. 35			*		

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ITEM #	REASON FOR DISAGREEMENT WITH MEAN RESPONSE (*)

APPENDIX C

ATTITUDES TOWARD CAREER EDUCATION

IN

YONKERS, NEW YORK

A report submitted by

POLICY STUDIES IN EDUCATION
52 Vanderbilt Avenue
New York, New York

January 1974

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INTRODUCTION

The Yonkers, New York Board of Education received federal funding in July, 1973 to develop its own career education program. The project, proposed for a period of several years, begins in the elementary schools and culminates at the post high school level.

The attitudes and opinions of the Yonkers community--students, school staff, parents, and business and industry representatives--are the core around which the project's career education curriculum will be molded. Therefore, in October, 1973, the project staff surveyed approximately 900 individuals to solicit their attitudes and opinions regarding career education goals and objectives for a local program.

The survey instrument used to gather these attitudes and opinions was prepared by the project staff. It was field-tested with faculty and students from Yonkers Prep and modifications were made based on the results. The instrument was distributed to the principals of the four pilot project schools who, in turn, requested their entire staff (100%) to respond. Fifth grade students (100%) in the four schools and their parents (100%) were also surveyed. Business and industry representatives from five key community groups were sampled and included in the survey. In total, 66 percent of the 900 requested survey instruments were returned. Students and staff, as contrasted to parents and business and industry representatives, achieved higher return rates than the average cited above.

The following report summarizes and interprets the findings of the Yonkers career education survey. The data are presented by individual respondent groups as well as for the sample as a whole.

FINDINGS

Strongly Favorable Attitudes Toward Career Education

Students, staff, parents, and representatives of local business and industry in Yonkers all have extremely positive attitudes toward career education. They clearly feel that career education is important and evidently think that the school curriculum would be strengthened if it were made available. They also agree that it can materially benefit a person's future, in that it will improve his chances for employment. Finally, it is not seen as a flash in the pan that will make a brief impression and then disappear.

Sample Summary. Of a total of 601 students, staff members, parents, and local businessmen responding to 35 statements more agreed with these seven than with any others:

	Statement	Percent Agreeing
23.	Work habits such as functuality and reliability should be stressed in the school program.	89
4.	School experiences should help students to understand that their interests can be a basis for career planning.	87
22.	While learning about career opportunities, students should see people performing their jobs.	87
9.	Field trips and work experiences will be more beneficial if the teacher incorporates them into the curriculum.	86
5.	Actual work experience can have great educational value for all students.	85
10.	Curriculum should make students aware of the physical and intellectual skills needed for various jobs.	84
12.	Schools would do a better job if they taught students the necessary skills for coping with adult life.	84
29.	There are many more career opportunities than most people are aware of.	84

Out of the same 35 statements, fewer of the 601 individuals sampled agreed with these six than with any others:

Statement	Percent Agreeing
18. Teaching about career opportunities should be the responsibility of parents alone.	4
20. Providing students with career information should be the responsibility of the guidance department only.	7
32. Career information is not important for students whose parents already know what they want their children to be.	8
30. Teaching children how to use tools and machines in the schools is a waste of taxpayers' money.	10
28. Schools should protect children from the realities of life.	12
31. Teaching students about the world of work can be done in a one semester high school course.	14

Clearly the total sample believes strongly that the schools should place much greater emphasis upon the relationship between school work and students' eventual entry into the work force, as well as the physical and intellectual skills they will need to develop in order to ensure the greatest likelihood of success. Moving out into the community under school auspices to see people performing different kinds of work will be most helpful, it is felt, if this process is woven into the regular curriculum. Here we see a melding of community involvement with the infusive attitude factor dimensions. It is evident to the entire group that one thing that hampers many students is that they simply have not been made aware of a great many career fields that might be open to them.

Responsibility for career education is something which the group obviously does not see as one restricted to the home or to school guidance counsellors. It is also evident that career education is seen as one of the proper duties of the public schools and that it cannot be confined within the limits of a one-semester course. Nor are the schools looked upon as institutions which should shelter children from the realities and responsibilities of life. Interestingly, a majority seem to feel that the schools encourage students to think for themselves. Even those children whose parents have decided what their child's probable course in life might be should be given every opportunity to avail themselves of career education experiences in the schools.

A majority do not think that women must either be family or career oriented, but more than 40 percent think that most people are unhappy with their present employment. Sex discrimination within the total sample appears to find little favor. In general, then, the majority of the total sample may be said to be strongly behind the concept of career education.

Students. Of a total of 200 students responding to the 35 statements more agreed with the following 11 statements than with any others:

Statement	Percent Agreeing
12. Schools would do a better job if they taught students the necessary skills for coping with adult life.	96
23. Work habits such as punctuality and reliability should be stressed in the school program.	84
3. Our schools encourage a student to think for himself/herself.	83
29. There are many more career opportunities than most people are aware of.	81
27. Schools have not done enough to promote a student's sense of responsibility.	78
22. While learning about career opportunities, students should see people performing their jobs.	77
9. Field trips and work experience will be more beneficial if the teacher incorporates them into the curriculum.	75

	Statement	Percent Agreeing
16.	The top priority of schools should be to educate children so that they can make decisions intelligently.	75
4.	School experiences should help students to understand that their interests can be a basis for career planning.	73
5.	Actual work experience can have great educational value for all students.	73
34.	Students should have a career goal by the time they leave high school.	73

On the other hand, out of the same 35 statements, fewer of the 200 students sampled agreed with these seven than any others:

	Statement	Percent Agreeing
18.	Teaching about career opportunities should be the responsibility of parents alone.	9
20.	Providing students with career information should be the responsibility of the guidance department only.	9
32.	Career information is not important for students whose parents already know what they want their children to be.	17
25.	School programs providing information about job opportunities are not necessary for college bound students.	22
30.	Teaching children how to use tools and machines in the schools is a waste of taxpayer's money.	22
28.	Schools should protect children from the realities of life.	23
26.	Career education is another name for vocational education.	25

It is interesting to note that the single most positive response from the students came when they were asked if the schools would be more effective if they prepared their students for the responsibilities of coping with adult life. This clearly indicates that infusion is the most important attitude factor dimension for the students sampled, and this is reinforced by the student's desire for reinforcement of proper work habits and the incorporation of work-related experiences into their curriculum.

Paradoxically, the students concluded that their school experiences tended to encourage them to think for themselves, while at the same time they felt strongly that the schools should do more to help them handle their decision-making in an intelligent and responsible fashion. Community commitment to career education is highly important to the students; they want to observe the adult community at work and learn more of the great variety of job opportunities open to them. They also want experience in holding down a job before leaving school and want to be oriented toward a career goal of some kind before leaving high school. Only a third feel prepared now to enter the job market when they graduate. Another one-third feel that they are not and one-third are not sure. One-third of the students considered that a one-semester course in career education would be sufficient. One-third disagreed, and one-third were uncertain. Clearly students should have an opportunity to learn more about the long range benefits of continuing career education.

While in agreement with the total sample concerning the need for school and parental involvement in helping them to develop their ideas about careers, the students are understandably a bit more anxious to be protected from life's realities than their teachers, parents, and local business leaders feel they should be. About one-quarter equate career education with vocational education.

The students are uncertain as to whether women must choose between careers and motherhood, and do not really know if most people are happy with their jobs. Though the total sample feels by a slight majority that students should be introduced to career possibilities in the primary grades, the students are much less certain.

Summing up, it can be said that the students clearly want the schools to help them prepare for the job market, and that fully three-quarters of them endorse the career education concept and the idea that they should have some career goal in mind when they complete high school. They are not, however, of one mind about the amount of time that should be committed to the career education process. At the same time, only a minority feel prepared to tackle the employment market on leaving high school. The school staffs will obviously need, therefore, to help students correlate career education with their chances of future job success.

Staff. Of a total of 80 staff members responding to the 35 statements more agreed with the ten which follow than with any other:

Statement	Percent Agreeing
4. School experiences should help students to understand that their interests can be a basis for career planning.	98
22. While learning about career opportunities, students should see people performing their jobs.	96
9. Field trips and work experiences will be more beneficial if the teacher incorporates them into the curriculum.	95
5. Actual work experience can have great educational value for all students.	94
11. A field trip can be as worthwhile as an afternoon spent in class.	93
14. School curriculum should make students aware of the many different careers that are available.	91
23. Work habits such as punctuality and reliability should be stressed in the school program.	91
29. There are many career opportunities that most people are unaware of.	90
8. The success of new programs in a school is greatly influenced by the principal's commitment to them.	89

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Statement	Percent Agreeing
16. Counselors should make students aware of the physical and intellectual skills needed for various jobs.	89

At the other end of the scale, fewer of the staff members sampled agreed with these nine statements than with any others:

Statement	Percent Agreeing
18. Teaching about career opportunities should be the responsibility of parents alone.	0
31. Teaching students about the world of work can be done in a one semester high school course.	2
15. Women must choose between having a career or raising a family.	4
30. Providing students with career information should be the responsibility of the guidance department only.	4
32. Career information is not important for students whose parents already know what they want their children to be.	4
17. Students learn enough about jobs in vocational education courses.	6
28. Schools should protect children from the realities of life.	6
40. Teaching children how to use tools and machines in the schools is a waste of the taxpayer's money.	10
19. Schools are doing enough to help students plan their future careers.	11

The staff members decisively agreed that school experience should help the individual student understand that the things he/she is interested in can serve as a useful tool in career planning. It is interesting to note that business leaders (97%) and parents (92%) are only slightly less emphatic on this point, while students (73%) seem somewhat less convinced of the truth of this.

The teachers are also quite clearly convinced that observing people at work holding down a job, and incorporating these experiences into the curriculum can be of strong benefit to their students. Obviously the curriculum is seen as a critical tool in helping students become aware of various career opportunities together with the skills these require, and they feel attention should be given to the development of strong work habits.

Only 51%, however, consider that the schools are encouraging students to think for themselves, not a particularly strong endorsement of the current program. Nor do they fully approve of the present course offerings. Forty percent feel that the curriculum stresses factual detail instead of practical skills, with 35 percent agreeing and a quarter of the group undecided. A clear majority, however (89%) are convinced that any new program must have the strong support of the school principal if it is to enjoy any success. These statistics would suggest that the staff is in at least partial agreement with the students concerning the efficacy of the present curriculum.

At least one-quarter of the staff consider vocational education synonymous with career education, and this appears to coincide very well with the student viewpoint. Inasmuch as 40 percent of the businessmen sampled came to the same conclusion, however, the attitudes of both staff and students may to some extent be said to have been influenced by the surrounding community. Clearly the public's concept of career education will need reinforcement at the same time that the idea is being presented to staff and students.

The teachers appear far more certain than any other group that women can combine work with parenthood. They are fully prepared to have the schools assume a leading role in career education and do not feel that this should be regarded as a one shot operation. They are fully prepared to share career guidance functions with the student personnel staff and do not think that vocational education courses provide the answer to the need for career education.

While they want their charges to have a reasonably clear picture of the challenges posed by the working world, a few (10%) consider that the use of tools and machines have no place in the curriculum and a similar minority (11%) feel that the schools are doing all that is necessary to prepare students for their career choices. Interestingly, the staff rejected sex discrimination in career education (80%) far more decisively than did the students (57%). Businessmen (75%) and parents (71%) were only slightly less certain about this question. Staff members, then, are fully behind the career education concept and would be prepared to implement it with enthusiasm, particularly if their administrators are committed to its success.

Parents. Out of the 35 statements in the questionnaire, the 230 parents sampled agreed with the following nine more than any of the others:

Statement	Percent Agreeing
4. School experiences should help students to understand that their interests can be a basis for career planning.	92
10. Curriculum should make students aware of the physical and intellectual skills needed for various jobs.	92
14. School curriculum should make students aware of the many different careers that are available.	92

9.	Field trips and work experiences will be more beneficial if the teacher incorporates them into the curriculum.	91
22.	While learning about career opportunities, students should see people performing their jobs.	91
5.	Actual work experience can have great educational value for all students.	90
23.	Work habits such as punctuality and reliability should be stressed in the school program.	90
19.	One of the goals of career education should be to prepare students to become economically capable of standing on their own two feet.	89
11.	A field trip can be as worthwhile as an afternoon spent in class.	87

The conclusion that parents favor career education in the schools is reinforced by examining the statements they disagreed with. Fewer parents agreed with the following seven statements than with any others:

	Statement	Percent Agreeing
18.	Teaching about career opportunities should be the responsibility of parents alone.	3
30.	Teaching children how to use tools and machines in the schools is a waste of taxpayers' money.	3
32.	Career information is not important for students whose parents already know what they want their children to be.	4
31.	Teaching students about the world of work can be done in a one semester high school course.	5
20.	Providing students with career information should be the responsibility of the guidance department only.	9
28.	Schools should protect children from the realities of life.	9
17.	Students learn enough about jobs in vocational education courses.	10

Rejecting these statements is, of course, another way of expressing a positive attitude toward career education. The parents sampled are clearly of the opinion that the schools must play a sizeable role in helping their children determine what their aptitudes and interests are, that the schools should help them to equate these with the possible range of career choices of which they may be unaware, and that the schools should teach them about the various skills they will need in the process of making their ultimate choices. Field trips and actual work experiences are excellent means of implementing these concepts,they feel, and they are agreeable by a wide margin to having all of these made part of the regular curriculum They strongly feel that the development of good work habits should have high priority in the schools, and want their sons and daughters to be able to take care of their own financial needs at the close of their high school careers. Certainly they do not think their children are ready to enter the job market upon graduating from high school as matters now stand.

The parents obviously want the schools to assist them with the career education process, and feel that career information and education should have great emphasis placed upon them. Only a bare majority seem to think that present programs encourage students to think for themselves. About one-tenth seem to think that career education can be handled by the school guidance department or in a one semester high school course and want their children exposed to the working world somewhat more slowly. One-third tend to confuse career education with vocational education courses, though only ten percent think this will take care of the problem of career determination. In general, however, the parents are clearly supportive of the concept of career education as a part of the school curriculum and endorse the means of implementing it which have been suggested. Only one-fifth feel that the schools are handling the matter adequately at this time. Only half of the parents in the sample consider that most persons are happy with their work. In general, therefore, the parents look upon career education with great favor and could be expected to give it their strong support.

Business and Industry. Of a total of 91 business and industrial personnel responding, more agreed with these 11 statements than with any others:

Statement	Percent Agreeing
14. School curriculum should make students aware of the many different careers that are available.	98
4. School experiences should help students to understand that their interests can be a basis for career planning.	97
10. Curriculum should make students aware of the physical and intellectual skills needed for various jobs.	97
23. Work habits such as punctuality and reliability should be stressed in the school program.	97
5. Actual work experience can have great educational value for all students.	95
19. One of the goals of career education should be to prepare students to become economically capable of standing on their own two feet.	93
16. The top priority of schools should be to educate children so that they can make decisions intelligently.	92
11. A field trip can be as worthwhile as an afternoon spent in class.	91
9. Field trips and work experiences will be more beneficial if the teacher incorporates them into the curriculum.	91

22.	While learning about career opportunities, students should see people performing their jobs.	90
29.	There are many more career opportunities than most people are aware of.	89

Of the business and industrial personnel responding, fewer agreed with these nine than with any others:

	Statement	Percent Agreeing
18.	Teaching about career opportunities should be the responsibility of parents alone.	0
28.	Schools should protect children from the realities of life.	1
32.	Career information is not important for students whose parents already know what they want their children to be.	1
30.	Teaching children how to use tools and machines in the schools is a waste of taxpayers' money.	2
31.	Teaching students about the world of work can be done in a one semester high school course.	2
20.	Providing students with career information should be the responsibility of the guidance department only.	4
17.	Students learn enough about jobs in vocational education courses.	7
15.	Women must choose between having a career or raising a family.	13
1.	Schools are doing enough to help students plan their future careers.	14

The business and industrial community comes out emphatically in favor of placing career seeking information within the school curriculum and clearly feels that properly structured school experiences can be of great help to the student trying to find his way. Actual work experience is also strongly endorsed and the idea that high school youngsters should learn how to be economically independent is considered crucial. Field trips and work experiences, when incorporated into the curriculum, are looked upon as strongly supportive of these goals. Businessmen want students to see members of the work force on the job and consider that this would help students during the career selection process. They are also convinced that career information has not been disseminated sufficiently.

Businessmen and school staff are almost unanimous in their view that parents should not assume total responsibility for career education, nor should information on the subject be considered unimportant for those children whose parents already hold definite opinions concerning their child's possible career. The business community also holds that the schools should not protect students from the realities of job hunting and retention. Nor can career education be considered anything other than a continuing process, to be carried on by school staff with the support and cooperation of parents.

Businessmen are a bit less certain about vocational education courses, seven percent considering these adequate for teaching students about career education. A larger minority, 13 percent of the group, are certain that women must choose between their career aspirations and raising a family, but they are not nearly so concerned about this as are the students (40%) or parents (18%). One-seventh of the sample felt the schools were adequately handling the career education problem.

Summing up, it can be said that all four groups sampled agree in general with the primary thrust of career education and the means proposed to implement it, though the degree of acceptance of different aspects of the program varies.[222]

Conclusion

All four groups sampled seem to be in substantial agreement that there are a greater number of career opportunities available than most people would imagine. While all favor the idea that school experiences help students correlate their interests with career planning, there is a statistically important range of opinion between school staff who are most convinced of this (98%) and students who seem least (73%) impressed with this statement. A greater gap appears when it comes to having schools teach the skills that will best prepare students for adult living. Ninety-eight percent of the staff feel that this is valid, while only 71 percent of the students accept this as a proper role for the schools. Finally, while 97 percent of the businessmen sampled want the school curriculum to make clear to students the various kinds of physical and mental skills required for different jobs, only 66 percent of the students are convinced that they want this done. This would suggest that it is the students who most need to be informed about the validity of the various facets of career education since at the same time 96 percent of them also clearly want the schools to help prepare them for adult life.

It is also obvious that the students must have the differences between career and vocational education made more explicit, since 72 percent of them either consider the two one and the same or do not know the difference. Sixty percent of parents are in the same position, as against 53 percent of the businessmen and 47 percent of the staff. This makes it clear that a broad based campaign aimed at educating the 61 percent of the total sample who are unclear as to the goals of the program is a matter of the highest priority, since a majority of the total sample approve of the goals being sought and approve of the idea of giving career education a strong place in the total curriculum.

The most statistically important range of opinion on the questions with which all groups were in substantial agreement appeared when they were asked whether information concerning the working world could be confined within the scope of a one semester course. While only tiny minorities (2-5%) of school staff, parents, and businessmen agreed with this view, over one-third of the students accepted it, with one-third undecided and only one third in disagreement. This would tend to reinforce the conclusion that students feel career education may be as susceptible to compartmentalization as most academic subjects are, and that the specifics of career education are not sufficiently clear in their minds.

APPENDIX D

TABLE 14

RESPONSE FREQUENCY ON THE FIRST AND SECOND ROUNDS OF THE DELPHI TECHNIQUE, TOTAL SAMPLE POPULATION

First Round: N = 601
Second Round: N = 440

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Schools are doing enough to help students plan their future careers.	1	39	152	118	219	73	7	11	267	117	38
Career education should be part of the curriculum in all grades.	2	144	269	60	113	15	11	383	4	37	5
Our schools encourage a student to think for himself/herself.	3	130	250	104	86	31	12	410	5	9	4
School experiences should help students to understand that their interests can be a basis for career planning.	4	208	315	58	15	5	12	420	3	5	
Actual work experience can have great educational value for all students.	5	247	266	43	32	13	16	405	8	9	2
Most high school graduates are not prepared to enter the working world.	6	148	232	110	80	31	14	387	16	17	6
Schools over-emphasize useless facts at the expense of practical skills.	7	81	154	133	169	64	8	29	372	26	6
The success of new programs in a school is greatly influenced by the principal's commitment to them.	8	140	263	78	69	51	12	379	10	33	6
Field trips and work experiences will be more beneficial if the teacher incorporates them into the curriculum.	9	197	320	52	24	8	15	419	4		2
Curriculum should make students aware of the physical and intellectual skills needed for various jobs.	10	176	327	76	19	3	10	419	6	4	1
A field trip can be as worthwhile as an afternoon spent in class.	11	175	240	46	81	59	18	386	12	16	8
Schools would do a better job if they taught students the necessary skills for coping with adult life.	12	220	283	51	39	8	19	416	2	3	

TABLE 14--Continued

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
The elementary school grades are a proper time to introduce students to career possibilities.	13	76	240	88	156	41	17	128	266	27	2
School curriculum should make students aware of the many different careers that are available.	14	142	343	68	35	13	9	426	3	2	
Women must choose between having a career or raising a family.	15	62	74	86	200	179	1	12	197	180	50
The top priority of schools should be to educate children so that they can make decisions intelligently.	16	226	257	59	50	9	9	421	4	5	1
Students learn enough about jobs in vocational education courses.	17	19	81	167	263	71	2	5	12	414	7
Teaching about career opportunities should be the responsibility of parents alone.	18	12	14	36	304	235	1	8	4	409	18
One of the goals of career education should be to prepare students to become economically capable of standing on their own two feet.	19	161	314	83	30	13	3	428	5	4	
Providing students with career information should be the responsibility of the guidance department only.	20	6	39	75	344	137		4	1	425	10
High school students should graduate with sufficient skills to get a decent job.	21	149	322	62	53	15	9	420	7	4	
While learning about career opportunities, students should see people performing their jobs.	22	155	367	64	10	5	11	423	5		1
Work habits such as punctuality and reliability should be stressed in the school program.	23	278	258	35	18	12	11	427	1	1	

TABLE 14 --Continued

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Both boys and girls should learn how to hang a picture and wash a shirt.	24	155	254	96	58	38	13	406	12	7	2
School programs providing information about job opportunities are not necessary for college bound students.	25	42	99	54	256	150	3	6	5	414	12
Career education is another name for vocational education.	26	31	154	183	180	53	1	16	391	26	6
Schools have not done enough to promote a student's sense of responsibility.	27	124	236	135	92	14	10	412	7	10	1
Schools should protect children from the realities of life.	28	25	47	56	225	248	1	3	2	417	17
There are many more career opportunities than most people are aware of.	29	157	347	49	33	15	7	426	5	2	
Teaching children how to use tools and machines in the schools is a waste of taxpayers' money..	30	23	37	63	253	225	4	5	6	413	12
Teaching students about the world of work can be done in a one semester high school course.	31	20	66	102	277	136	1	4	9	412	14
Career information is not important for students whose parents already know what they want their children to be.	32	18	29	65	239	250		2	7	415	16
Most people are not happy at their jobs.	33	64	194	140	161	42	3	27	390	18	2
Students should have a career goal by the time they leave high school.	34	112	284	76	103	26	7	411	9	13	
The best way to find out about a person's job is to ask him/her.	35	99	280	74	118	30	10	49	372	9	

TABLE 15

RESPONSE FREQUENCY ON THE FIRST AND SECOND ROUNDS OF THE DELPHI TECHNIQUE, PROFESSIONAL STAFF SAMPLE

First Round: N = 80
Second Round: N = 60

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Schools are doing enough to help students plan their future careers.	1	2	7	15	41	15			28	23	9
Career education should be part of the curriculum in all grades.	2	18	35	5	20	2	1	56	1	2	
Our schools encourage a student to think for himself/herself.	3	10	31	7	25	7	1	55		3	1
School experiences should help students to understand that their interests can be a basis for career planning.	4	31	47	2			1	58		1	
Actual work experience can have great educational value for all students.	5	38	37		3	2	2	58			
Most high school graduates are not prepared to enter the working world.	6	17	38	17	8		2	58			
Schools over-emphasize useless facts at the expense of practical skills.	7	13	19	20	24	4		4	56		
The success of new programs in a school is greatly influenced by the principal's commitment to them.	8	29	42	5	4		1	58	1		
Field trips and work experiences will be more beneficial if the teacher incorporates them into the curriculum.	9	35	41	2	1	1	1	59			
Curriculum should make students aware of the physical and intellectual skills needed for various jobs.	10	29	42	7	2		1	59			
A field trip can be as worthwhile as an afternoon spent in class.	11	43	31	2		4	2	57		1	
Schools would do a better job if they taught students the necessary skills for coping with adult life.	12	23	34	17	6		1	58		1	

TABLE 15 --Continued

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
The elementary school grades are a proper time to introduce students to career possibilities.	13	14	33	11	20	2	4	23	31	2	
School curriculum should make students aware of the many different careers that are available.	14	22	51	5	1	1	1	59			
Women must choose between having a career or raising a family.	15	3		5	24	48			17	26	17
The top priority of schools should be to educate children so that they can make decisions intelligently.	16	34	34	6	4	2		58		2	
Students learn enough about jobs in vocational education courses.	17	2	3	23	39	13				58	2
Teaching about career opportunities should be the responsibility of parents alone.	18			2	49	29				59	1
One of the goals of career education should be to prepare students to become economically capable of standing on their own two feet.	19	24	44	4	7	1		60			
Providing students with career information should be the responsibility of the guidance department only.	20		3	7	52	18				59	1
High school students should graduate with sufficient skills to get a decent job.	21	21	47	7	5		1	58	1		
While learning about career opportunities, students should see people performing their jobs.	22	35	42	2		1	1	59			
Work habits such as punctuality and reliability should be stressed in the school program.	23	41	32	2	5		2	58			

TABLE 15--Continued

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Both boys and girls should learn how to hang a picture and wash a shirt.	24	25	39	10	3	3	1	59			
School programs providing information about job opportunities are not necessary for college bound students.	25	3	13	2	35	27				58	2
Career education is another name for vocational education.	26	2	19	17	30	12		1	54	5	
Schools have not done enough to promote a student's sense of responsibility.	27	14	21	20	22	3	1	53		5	1
Schools should protect children from the realities of life.	28	2	3	5	26	44				59	1
There are many more career opportunities than most people are aware of.	29	25	47	1	3	4	1	59			
Teaching children how to use tools and machines in the schools is a waste of taxpayers' money..	30	2	6	1	33	38				59	1
Teaching students about the world of work can be done in a one semester high school course.	31	1	1	8	42	28				59	1
Career information is not important for students whose parents already know what they want their children to be.	32	3		4	30	43				59	1
Most people are not happy at their jobs.	33	8	29	21	18	4		4	55	1	
Students should have a career goal by the time they leave high school.	34	7	26	12	27	8	1	54	1	4	
The best way to find out about a person's job is to ask him/her.	35	6	35	15	21	3		4	53	3	

TABLE 16

RESPONSE FREQUENCY ON THE FIRST AND SECOND ROUNDS OF THE DELPHI TECHNIQUE, STUDENT SAMPLE

First Round: N = 200
Second Round: N = 160

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Schools are doing enough to help students plan their future careers.	1	26	98	44	20	12	5	9	112	23	11
Career education should be part of the curriculum in all grades.	2	47	72	30	45	6	5	121	3	26	5
Our schools encourage a student to think for himself/herself.	3	82	84	18	11	5	8	152			
School experiences should help students to understand that their interests can be a basis for career planning.	4	68	77	41	9	5	3	150	3	4	
Actual work experience can have great educational value for all students.	5	67	79	25	18	11	9	134	6	9	2
Most high school graduates are not prepared to enter the working world.	6	25	47	57	41	30	8	116	13	17	6
Schools over-emphasize useless facts at the expense of practical skills.	7	32	28	35	60	45	6	7	136	6	5
The success of new programs in a school is greatly influenced by the principal's commitment to them.	8	24	48	33	46	49	7	107	8	32	6
Field trips and work experiences will be more beneficial if the teacher incorporates them into the curriculum.	9	75	74	26	19	6	12	142	4		2
Curriculum should make students aware of the physical and intellectual skills needed for various jobs.	10	49	83	51	14	3	4	145	6	4	1
A field trip can be as worthwhile as an afternoon spent in class.	11	31	26	24	67	52	12	114	11	15	8
Schools would do a better job if they taught students the necessary skills for coping with adult life.	12	123	70	2	3	2	12	146	1	1	

TABLE 16--Continued

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
The elementary school grades are a proper time to introduce students to career possibilities.	13	34	51	35	49	31	5	35	108	10	2
School curriculum should make students aware of the many different careers that are available.	14	36	75	45	33	11	4	151	3	2	
Women must choose between having a career or raising a family.	15	42	38	45	34	41	1	11	93	42	13
The top priority of schools should be to educate children so that they can make decisions intelligently.	16	96	53	26	21	4	4	151	3	2	
Students learn enough about jobs in vocational education courses.	17	16	49	65	50	20	2	5	9	143	1
Teaching about career opportunities should be the responsibility of parents alone.	18	8	10	22	48	112	1	8	4	135	12
One of the goals of career education should be to prepare students to become economically capable of standing on their own two feet.	19	52	66	48	23	11	1	151	4	4	
Providing students with career information should be the responsibility of the guidance department only.	20	3	15	44	70	68		3	1	152	4
High school students should graduate with sufficient skills to get a decent job.	21	62	81	27	18	12	5	149	5	1	
While learning about career opportunities, students should see people performing their jobs.	22	48	105	37	7	3	5	149	5		1
Work habits such as punctuality and reliability should be stressed in the school program.	23	89	78	22	2	9	3	156	1		

TABLE 16--Continued

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Both boys and girls should learn how to hang a picture and wash a shirt.	24	52	62	40	14	32	9	136	9	4	2
School programs providing information about job opportunities are not necessary for college bound students.	25	21	22	31	53	73	2	5	5	143	5
Career education is another name for vocational education.	26	17	32	95	34	22	1	4	148	4	3
Schools have not done enough to promote a student's sense of responsibility.	27	72	84	30	11	3	4	153	2	1	
Schools should protect children from the realities of life.	28	17	28	34	59	62	1	3	2	145	9
There are many more career opportunities than most people are aware of.	29	56	106	22	8	8	3	152	3	2	
Teaching children how to use tools and machines in the schools is a waste of taxpayers' money..	30	17	26	39	64	54	4	5	5	142	4
Teaching students about the world of work can be done in a one semester high school course.	31	17	53	66	38	26	1	4	9	143	3
Career information is not important for students whose parents already know what they want their children to be.	32	12	21	45	54	68		2	7	148	3
Most people are not happy at their jobs.	33	27	43	59	50	21	2	6	140	10	2
Students should have a career goal by the time they leave high school.	34	56	90	37	10	7	4	149	5	2	
The best way to find out about a person's job is to ask him/her.	35	53	69	31	21	26	6	22	129	3	

TABLE 17

RESPONSE FREQUENCY ON THE FIRST AND SECOND ROUNDS OF THE DELPHI TECHNIQUE, PARENT SAMPLE

First Round: N = 230
Second Round: N = 156

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Schools are doing enough to help students plan their future careers.	1	9	36	33	114	38	1	2	85	53	15
Career education should be part of the curriculum in all grades.	2	56	110	17	41	6		150		6	
Our schools encourage a student to think for himself/herself.	3	26	98	56	34	16		148	1	4	3
School experiences should help students to understand that their interests can be a basis for career planning.	4	70	142	12	6		1	155			
Actual work experience can have great educational value for all students.	5	84	122	15	9		1	155			
Most high school graduates are not prepared to enter the working world.	6	81	98	31	20			155	1		
Schools over-emphasize useless facts at the expense of practical skills.	7	29	81	56	58	6		9	131	15	1
The success of new programs in a school is greatly influenced by the principal's commitment to them.	8	66	121	31	12		2	153		1	
Field trips and work experiences will be more beneficial if the teacher incorporates them into the curriculum.	9	55	154	16	4	1		156			
Curriculum should make students aware of the physical and intellectual skills needed for various jobs.	10	70	142	15	3			156			
A field trip can be as worthwhile as an afternoon spent in class.	11	65	136	14	13	2	1	155			
Schools would do a better job if they taught students the necessary skills for coping with adult life.	12	56	122	23	23	6		156			

TABLE 17--Continued

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
The elementary school grades are a proper time to introduce students to career possibilities.	13	25	103	26	68	8	6	55	85	10	
School curriculum should make students aware of the many different careers that are available.	14	56	156	16	1	1		156			
Women must choose between having a career or raising a family.	15	15	26	26	97	66		1	61	75	19
The top priority of schools should be to educate children so that they can make decisions intelligently.	16	63	119	22	23	3		154	1	1	
Students learn enough about jobs in vocational education courses.	17	1	23	58	119	29			2	151	3
Teaching about career opportunities should be the responsibility of parents alone.	18	4	4	9	147	66				153	3
One of the goals of career education should be to prepare students to become economically capable of standing on their own two feet.	19	57	147	17	9			155	1		
Providing students with career information should be the responsibility of the guidance department only.	20	3	17	19	157	34		1		155	
High school students should graduate with sufficient skills to get a decent job.	21	48	137	20	22	3		153		3	
While learning about career opportunities, students should see people performing their jobs.	22	50	160	16	3	1		156			
Work habits such as punctuality and reliability should be stressed in the school program.	23	105	103	9	10	3		155		1	

TABLE 17--Continued

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Both boys and girls should learn how to hang a picture and wash a shirt.	24	59	104	28	36	3		153		3	
School programs providing information about job opportunities are not necessary for college bound students.	25	12	37	15	122	44				155	1
Career education is another name for vocational education.	26	11	68	59	78	14		6	144	6	
Schools have not done enough to promote a student's sense of responsibility.	27	27	93	66	38	6		152	2	2	
Schools should protect children from the realities of life.	28	6	15	12	93	104				153	3
There are many more career opportunities than most people are aware of.	29	52	137	18	20	3		155	1		
Teaching children how to use tools and machines in the schools is a waste of taxpayers' money.	30	3	4	18	112	93				155	1
Teaching students about the world of work can be done in a one semester high school course.	31	2	10	23	138	57				154	2
Career information is not important for students whose parents already know what they want their children to be.	32	2	8	10	107	103				153	3
Most people are not happy at their jobs.	33	22	94	52	50	12	1	7	144	4	
Students should have a career goal by the time they leave high school.	34	40	122	23	41	4		153		3	
The best way to find out about a person's job is to ask him/her.	35	29	129	17	54	1	1	11	142	2	

TABLE 18

RESPONSE FREQUENCY ON THE FIRST AND SECOND ROUNDS OF THE DELPHI TECHNIQUE, BUSINESS SAMPLE

First Round: N = 91
Second Round: N = 64

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Schools are doing enough to help students plan their future careers.	1	2	11	26	44	8	1		42	18	3
Career education should be part of the curriculum in all grades.	2	23	52	8	7	1	5	56		3	
Our schools encourage a student to think for himself/herself.	3	12	37	23	16	3	3	55	4	2	
School experiences should help students to understand that their interests can be a basis for career planning.	4	39	49	3			7	57			
Actual work experience can have great educational value for all students.	5	58	28	3	2		4	58	2		
Most high school graduates are not prepared to enter the working world.	6	25	49	5	11	1	4	58	2		
Schools over-emphasize useless facts at the expense of practical skills.	7	7	26	22	27	9	2	9	49	4	
The success of new programs in a school is greatly influenced by the principal's commitment to them.	8	21	52	9	7	2	2	61	1		
Field trips and work experiences will be more beneficial if the teacher incorporates them into the curriculum.	9	32	51	8			2	62			
Curriculum should make students aware of the physical and intellectual skills needed for various jobs.	10	28	60	3			5	59			
A field trip can be as worthwhile as an afternoon spent in class.	11	36	47	6	1	1	3	60	1		
Schools would do a better job if they taught students the necessary skills for coping with adult life.	12	18	57	9	7		6	56	1	1	

TABLE 18--Continued

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
The elementary school grades are a proper time to introduce students to career possibilities.	13	3	53	16	19		2	15	42	5	
School curriculum should make students aware of the many different careers that are available.	14	28	61	2			4	60			
Women must choose between having a career or raising a family.	15	2	10	10	45	24			26	37	1
The top priority of schools should be to educate children so that they can make decisions intelligently.	16	33	51	5	2		5	58			1
Students learn enough about jobs in vocational education courses.	17		6	21	55	9			1	62	1
Teaching about career opportunities should be the responsibility of parents alone.	18			3	60	28				62	2
One of the goals of career education should be to prepare students to become economically capable of standing on their own two feet.	19	28	57	4	1	1	2	62			
Providing students with career information should be the responsibility of the guidance department only.	20		4	5	65	17				59	5
High school students should graduate with sufficient skills to get a decent job.	21	18	57	8	8		3	60	1		
While learning about career opportunities, students should see people performing their jobs.	22	22	60	9			5	59			
Work habits such as punctuality and reliability should be stressed in the school program.	23	43	45	2	1		6	58			

TABLE 18 --Continued

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Both boys and girls should learn how to hang a picture and wash a shirt.	24	19	49	18	5		3	58	3		
School programs providing information about job opportunities are not necessary for college bound students.	25	6	27	6	46	6	1	1		58	4
Career education is another name for vocational education.	26	1	35	12	38	5		5	45	11	3
Schools have not done enough to promote a student's sense of responsibility.	27	11	38	19	21	2	5	54	3	2	
Schools should protect children from the realities of life.	28		1	5	47	38				60	4
There are many more career opportunities than most people are aware of.	29	24	57	8	2		3	60	1		
Teaching children how to use tools and machines in the schools is a waste of taxpayers' money..	30	1	1	5	44	40			1	57	6
Teaching students about the world of work can be done in a one semester high school course.	31		2	5	59	25				56	8
Career information is not important for students whose parents already know what they want their children to be.	32	1		6	48	36				55	9
Most people are not happy at their jobs.	33	7	28	8	43	5		10	51	3	
Students should have a career goal by the time they leave high school.	34	9	46	4	25	7	2	55	3	4	
The best way to find out about a person's job is to ask him/her	35	11	47	11	22		3	12	48	1	

TABLE 19

RESPONSE FREQUENCY ON THE FIRST AND SECOND ROUNDS OF THE DELPHI TECHNIQUE, SCHOOL 19 SAMPLE

First Round: N = 78
Second Round: N = 64

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Schools are doing enough to help students plan their future careers.	1	11	28	11	19	9	2	3	39	14	6
Career education should be part of the curriculum in all grades.	2	27	31	2	14	4	3	57	1	2	1
Our schools encourage a student to think for himself/herself.	3	16	29	10	18	5	4	58		1	1
School experiences should help students to understand that their interests can be a basis for career planning.	4	24	43	7	3	1	1	62	1		
Actual work experience can have great educational value for all students.	5	32	32	7	6	1	2	55	2	4	1
Most high school graduates are not prepared to enter the working world.	6	22	28	18	9	1	2	58	3	1	
Schools over-emphasize useless facts at the expense of practical skills.	7	9	18	18	22	11	1	2	55	4	2
The success of new programs in a school is greatly influenced by the principal's commitment to them.	8	23	34	10	7	4	2	56		5	1
Field trips and work experiences will be more beneficial if the teacher incorporates them into the curriculum.	9	24	36	6	7	5	4	59			1
Curriculum should make students aware of the physical and intellectual skills needed for various jobs.	10	27	35	12	3	1	2	59	2	1	
A field trip can be as worthwhile as an afternoon spent in class.	11	21	20	10	6	21	2	51	6	4	1
Schools would do a better job if they taught students the necessary skills for coping with adult life.	12	28	32	10	5	3	8	54		2	

TABLE 19 --Continued

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
The elementary school grades are a proper time to introduce students to career possibilities.	13	11	34	11	15	7	6	11	40	7	
School curriculum should make students aware of the many different careers that are available.	14	21	42	9	1	5	2	61	1		
Women must choose between having a career or raising a family.	15	9	10	10	24	25	1	2	36	15	10
The top priority of schools should be to educate children so that they can make decisions intelligently.	16	32	30	5	7	4	3	56	3	2	
Students learn enough about jobs in vocational education courses.	17	5	12	22	30	9	2	3	4	53	2
Teaching about career opportunities should be the responsibility of parents alone.	18	3	7	5	29	34	1	6	2	54	1
One of the goals of career education should be to prepare students to become economically capable of standing on their own two feet.	19	26	35	10	6	1		62	1	1	
Providing students with career information should be the responsibility of the guidance department only.	20	3	11	15	33	16		2	1	58	3
High school students should graduate with sufficient skills to get a decent job.	21	17	49	6	5	1	3	59	2		
While learning about career opportunities, students should see people performing their jobs.	22	23	45	4	5	1	4	58	2		
Work habits such as punctuality and reliability should be stressed in the school program.	23	31	32	8	4	3	4	60			

TABLE 19--Continued

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Both boys and girls should learn how to hang a picture and wash a shirt.	24	26	39	6	5	2	6	57	1		
School programs providing information about job opportunities are not necessary for college bound students.	25	6	14	8	26	22	2	3	3	55	1
Career education is another name for vocational education.	26	6	19	28	19	6	1	2	57	3	1
Schools have not done enough to promote a student's sense of responsibility.	27	26	28	12	7	5	4	58	1	1	
Schools should protect children from the realities of life.	28	9	9	6	24	30		2	1	58	3
There are many more career opportunities than most people are aware of.	29	20	42	6	5	5	3	58	2	1	
Teaching children how to use tools and machines in the schools is a waste of taxpayers' money..	30	3	7	10	29	29	1	2	1	57	3
Teaching students about the world of work can be done in a one semester high school course.	31	7	8	16	29	18	1	2	5	54	2
Career information is not important for students whose parents already know what they want their children to be.	32	7	7	15	25	24		2	5	56	1
Most people are not happy at their jobs.	33	8	34	22	11	3	1	4	56	3	
Students should have a career goal by the time they leave high school.	34	18	32	11	14	3	3	57	3	1	
The best way to find out about a person's job is to ask him/her.	35	11	45	11	6	5	2	7	53	2	

TABLE 20

RESPONSE FREQUENCY ON THE FIRST AND SECOND ROUNDS OF THE DELPHI TECHNIQUE, SCHOOL 26 SAMPLE

First Round: N = 168
Second Round: N = 126

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Schools are doing enough to help students plan their future careers.	1	18	46	41	48	15	1	2	86	27	10
Career education should be part of the curriculum in all grades.	2	30	68	24	42	4	1	109	3	12	1
Our schools encourage a student to think for himself/herself.	3	34	79	29	24	2	3	118	1	3	1
School experiences should help students to understand that their interests can be a basis for career planning.	4	47	89	25	5	2	2	117	2	5	
Actual work experience can have great educational value for all students.	5	56	77	19	13	3	5	116	3	2	
Most high school graduates are not prepared to enter the working world.	6	27	71	39	17	14	3	108	10	3	2
Schools over-emphasize useless facts at the expense of practical skills.	7	20	48	35	50	15	3	7	105	11	
The success of new programs in a school is greatly influenced by the principal's commitment to them.	8	39	72	23	23	10	6	106	4	8	2
Field trips and work experiences will be more beneficial if the teacher incorporates them into the curriculum.	9	55	80	23	9	1	1	122	2		1
Curriculum should make students aware of the physical and intellectual skills needed for various jobs.	10	38	94	32	4		2	120	3		1
A field trip can be as worthwhile as an afternoon spent in class.	11	44	63	12	37	11	5	111	3	4	3
Schools would do a better job if they taught students the necessary skills for coping with adult life.	12	62	67	24	13	2	2	123	1		

TABLE 20--Continued

	FIRST ROUND					SECOND ROUND				
	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
The elementary school grades are a proper time to introduce students to career possibilities. 13	13	60	33	51	11	3	23	92	8	
School curriculum should make students aware of the many different careers that are available. 14	32	91	24	18	3	1	122	2	1	
Women must choose between having a career or raising a family. 15	23	24	29	51	41		6	56	45	19
The top priority of schools should be to educate children so that they can make decisions intelligently. 16	65	68	18	16	1		123	1	2	
Students learn enough about jobs in vocational education courses. 17	7	23	60	66	12			6	120	
Teaching about career opportunities should be the responsibility of parents alone. 18		1	17	87	63		2	1	119	4
One of the goals of career education should be to prepare students to become economically capable of standing on their own two feet. 19	41	94	23	8	2		123	3		
Providing students with career information should be the responsibility of the guidance department only. 20	1	11	29	95	32		1		124	1
High school students should graduate with sufficient skills to get a decent job. 21	32	83	29	19	4		122	2	2	
While learning about career opportunities, students should see people performing their jobs. 22	39	95	29	3	2		124	2		
Work habits such as punctuality and reliability should be stressed in the school program. 23	78	70	11	7	2		125	1		

TABLE 20--Continued

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Both boys and girls should learn how to hang a picture and wash a shirt.	24	34	52	35	25	22		115	7	3	1
School programs providing information about job opportunities are not necessary for college bound students.	25	6	26	22	77	37			1	122	3
Career education is another name for vocational education.	26	9	37	63	44	15		4	119	3	
Schools have not done enough to promote a student's sense of responsibility.	27	25	62	55	22	4		124	1	1	
Schools should protect children from the realities of life.	28	5	23	19	58	63		1	1	122	2
There are many more career opportunities than most people are aware of.	29	40	94	22	9	3	1	124	1		
Teaching children how to use tools and machines in the schools is a waste of taxpayers' money..	30	8	14	30	78	39	1		3	122	
Teaching students about the world of work can be done in a one semester high school course.	31	3	24	47	73	21			1	124	1
Career information is not important for students whose parents already know what they want their children to be.	32	2	10	23	66	67				123	3
Most people are not happy at their jobs.	33	8	53	50	49	10	1	4	118	2	1
Students should have a career goal by the time they leave high school.	34	18	86	29	29	6		121	1	4	
The best way to find out about a person's job is to ask him/her.	35	27	84	19	31	7	2	12	110	2	

TABLE 21

RESPONSE FREQUENCY ON THE FIRST AND SECOND ROUNDS OF THE DELPHI TECHNIQUE, SCHOOL 27 SAMPLE

First Round: N = 118
Second Round: N - 77

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Schools are doing enough to help students plan their future careers.	1	1	27	17	59	13		1	34	31	11
Career education should be part of the curriculum in all grades.	2	22	58	11	23	2		73		4	
Our schools encourage a student to think for himself/herself.	3	27	50	17	12	12	1	74		2	
School experiences should help students to understand that their interests can be a basis for career planning.	4	37	63	12	4	1	1	76			
Actual work experience can have great educational value for all students.	5	52	57	5	3	1	3	72		1	1
Most high school graduates are not prepared to enter the working world.	6	31	43	25	15	4		67	1	6	3
Schools over-emphasize useless facts at the expense of practical skills.	7	19	28	32	32	7	1	7	67	2	
The success of new programs in a school is greatly influenced by the principal's commitment to them.	8	24	53	14	17	10		69	2	5	1
Field trips and work experiences will be more beneficial if the teacher incorporates them into the curriculum.	9	45	59	8	5	1	1	74	2		
Curriculum should make students aware of the physical and intellectual skills needed for various jobs.	10	35	62	16	5		1	76			
A field trip can be as worthwhile as an afternoon spent in class.	11	37	52	9	14	6	1	70	2	2	2
Schools would do a better job if they taught students the necessary skills for coping with adult life.	12	46	61	4	6	1	1	76			

TABLE 21 --Continued

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
The elementary school grades are a proper time to introduce students to career possibilities.	13	23	45	16	27	7	3	37	35	2	
School curriculum should make students aware of the many different careers that are available.	14	24	65	20	8	1		77			
Women must choose between having a career or raising a family.	15	11	18	14	36	39		2	34	32	9
The top priority of schools should be to educate children so that they can make decisions intelligently.	16	34	46	15	12	1		77			
Students learn enough about jobs in vocational education courses.	17	3	18	34	45	18			1	76	
Teaching about career opportunities should be the responsibility of parents alone.	18	2	4	5	56	51			1	75	1
One of the goals of career education should be to prepare students to become economically capable of standing on their own two feet.	19	28	58	18	10	4		74	1	2	
Providing students with career information should be the responsibility of the guidance department only.	20	1	8	14	69	26				77	
High school students should graduate with sufficient skills to get a decent job.	21	33	61	10	9	5		75	1	1	
While learning about career opportunities, students should see people performing their jobs.	22	35	74	7	1	1		76	1		
Work habits such as punctuality and reliability should be stressed in the school program.	23	42	59	9	4	4		76		1	

TABLE 21--Continued

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Both boys and girls should learn how to hang a picture and wash a shirt.	24	49	41	13	11	4		74	1	2	
School programs providing information about job opportunities are not necessary for college bound students.	25	11	8	8	50	41		1	1	73	2
Career education is another name for vocational education.	26	6	31	45	22	10		2	70	4	1
Schools have not done enough to promote a student's sense of responsibility.	27	21	52	26	19			73	1	3	
Schools should protect children from the realities of life.	28	4	3	14	43	54				73	4
There are many more career opportunities than most people are aware of.	29	33	78	3	1	3		75	1	1	
Teaching children how to use tools and machines in the schools is a waste of taxpayers' money..	30	4	5	7	52	50	1	1	1	73	1
Teaching students about the world of work can be done in a one semester high school course.	31	5	22	20	46	25			3	73	1
Career information is not important for students whose parents already know what they want their children to be.	32	5	6	8	50	49				74	3
Most people are not happy at their jobs.	33	16	41	31	24	6		7	67	3	
Students should have a career goal by the time they leave high school.	34	26	56	16	14	6		71	2	4	
The best way to find out about a person's job is to ask him/her.	35	31	53	15	16	3	1	9	65	2	

TABLE 22

RESPONSE FREQUENCY ON THE FIRST AND SECOND ROUNDS OF THE DELPHI TECHNIQUE, SCHOOL 32 SAMPLE

First Round: N = 146
Second Round: N = 109

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Schools are doing enough to help students plan their future careers.	1	7	40	22	49	28	3	5	66	27	8
Career education should be part of the curriculum in all grades.	2	42	60	15	25	4	2	88		16	3
Our schools encourage a student to think for himself/herself.	3	41	55	25	16	9	1	105		2	1
School experiences should help students to understand that their interests can be a basis for career planning.	4	61	71	10	3	1	1	108			
Actual work experience can have great educational value for all students.	5	49	72	9	8	8	2	104	1	2	
Most high school graduates are not prepared to enter the working world.	6	43	41	23	28	11	5	96		7	1
Schools over-emphasize useless facts at the expense of practical skills.	7	26	34	26	38	22	1	4	95	5	4
The success of new programs in a school is greatly influenced by the principal's commitment to them.	8	33	52	21	15	25	2	87	3	15	2
Field trips and work experiences will be more beneficial if the teacher incorporates them into the curriculum.	9	41	94	7	3	1	7	102			
Curriculum should make students aware of the physical and intellectual skills needed for various jobs.	10	48	76	13	7	2		105	1	3	
A field trip can be as worthwhile as an afternoon spent in class.	11	37	58	8	23	20	7	94		6	2
Schools would do a better job if they taught students the necessary skills for coping with adult life.	12	66	56	14	8	2	2	107			

TABLE 22--Continued

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
The elementary school grades are a proper time to introduce students to career possibilities.	13	26	48	11	45	16	3	42	57	5	2
School curriculum should make students aware of the many different careers that are available.	14	37	84	13	8	4	2	106		1	
Women must choose between having a career or raising a family.	15	17	12	24	44	50		2	45	51	11
The top priority of schools should be to educate children so that they can make decisions intelligently.	16	52	62	16	13	3	1	107		1	
Students learn enough about jobs in vocational education courses.	17	4	22	30	67	23		2		103	4
Teaching about career opportunities should be the responsibility of parents alone.	18	7	2	6	72	59				99	10
One of the goals of career education should be to prepare students to become economically capable of standing on their own two feet.	19	35	70	18	15	5	1	107		1	
Providing students with career information should be the responsibility of the guidance department only.	20	1	5	12	82	46		1		107	1
High school students should graduate with sufficient skills to get a decent job.	21	49	72	8	12	5	3	104	1	1	
While learning about career opportunities, students should see people performing their jobs.	22	36	93	15	1	1	2	106			1
Work habits such as punctuality and reliability should be stressed in the school program.	23	84	52	5	2	3	1	108			

TABLE 22--Continued

		FIRST ROUND					SECOND ROUND				
		Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5	Strongly Agree 1	Agree 2	No Opinion 3	Disagree 4	Strongly Disagree 5
Both boys and girls should learn how to hang a picture and wash a shirt.	24	27	63	24	12	20	4	102		2	1
School programs providing information about job opportunities are not necessary for college bound students.	25	13	24	10	55	44		1		106	2
Career education is another name for vocational education.	26	9	32	35	53	17		3	100	5	1
Schools have not done enough to promote a student's sense of responsibility.	27	41	56	24	23	3	1	103	1	3	1
Schools should protect children from the realities of life.	28	7	11	12	53	63	1			104	4
There are many more career opportunities than most people are aware of.	29	40	86	10	16	4		109			
Teaching children how to use tools and machines in the schools is a waste of taxpayers' money..	30	7	10	10	52	67	1	2		104	2
Teaching students about the world of work can be done in a one semester high school course.	31	5	10	14	70	47		2		105	2
Career information is not important for students whose parents already know what they want their children to be.	32	3	6	13	50	74			2	107	
Most people are not happy at their jobs.	33	25	38	31	34	18	1	2	98	7	1
Students should have a career goal by the time they leave high school.	34	41	64	15	21	4	2	107			
The best way to find out about a person's job is to ask him/her.	35	19	51	18	43	15	2	9	96	2	

APPENDIX E

As a result of piloting and inservicing efforts, the following Instructional Objectives (which will be used as the basis for writing performance objectives) were identified:

Awareness, Self

1. The student will become aware that choice of occupation significantly relates to life style.
2. The student will develop a realistic self-concept.
3. The student will understand his/her needs and that these vary from individual to individual.
4. The student will recognize his/her own self worth.
5. The student will accept his/her own uniqueness.
6. The student will recognize how his/her frame of reference influences his/her career choices.
7. The student will recognize that personal values influence the way in which he/she sees himself/herself.
8. The student will develop personally relevant goals.
9. The student will develop strategies to reach desired goals.
10. The student will use self-awareness in occupational decision-making.
11. The student will recognize the relationship of his/her interests to career goals.
12. The student will recognize the relationship of his/her aptitudes to career goals.
13. The student will recognize the relationship of his/her achievements to career goals.

Awareness, World

1. The student will become aware of forces that influence his development and the development of others.
2. The student will recognize that learning is a continuous process occurring in and outside of school.
3. The student will understand the meaning of work.
4. The student will recognize that work roles vary in an individual family or community.
5. The student will recognize the factors present in society which cause change.
6. The student will become aware of the role of work in different value systems.
7. The student will recognize the diversity of jobs in his community.
8. The student will become conscious of the range of benefits and disadvantages associated with various occupations.
9. The student will become cognizant of how business and industries contribute to community well-being.
10. The student will recognize the negative and positive aspects of stereotyping as it relates to occupation planning and choice of life style.
11. The student will recognize economic trends found in his community, state and nation.
12. The student will become conscious of the processes of production and distribution of goods and services.
13. The student will become aware of his role as a consumer.

14. The student will become aware of the main characteristics of a capitalist economy.
15. The student will become aware of the variety of occupations found in the world of work.

Awareness, Interaction

1. The student will become aware of his abilities in relation to the world of work.
2. The student will become aware of his interests in relation to the world of work.
3. The student will become aware of his expectations in relation to the world of work.
4. The student will learn how to tolerate differences in people in his interpersonal relationships.
5. The student will become conscious of the value of cooperative effort in a work situation.
6. The student will recognize why people work.
7. The student will understand how one's self-image is affected by one's work.
8. The student will understand how one's life style is affected by one's work.
9. The student will become cognizant of the relationship between work and education.
10. The student will recognize and appreciate the relationship between the individual and the environment.
11. The student will become aware of himself in relation to his culture through understanding and experiencing different roles.

12. The student will become conscious of how his occupational goals relate to his economic goals.

Development, Personal

1. The student will relate academic skills to preparation for work.
2. The student will see vocational and avocational choices as a lifelong evolutionary and developmental process.
3. The student will learn to identify and evaluate his/her values.
4. The student will learn about the necessity of discovering alternatives.
5. The student will develop the ability to obtain information about conditions existing in the labor market.
6. The student will develop behavior patterns consistent with his occupational choice.
7. The student will develop attitudes consistent with his occupational choice.
8. The student will see that work can be satisfying in many ways.

Development, Career

1. The student will develop positive attitudes toward self through an awareness of his developing talents, values and interests as they relate to work roles.
2. The student will learn that educational experiences are part of his career development.

3. The student will have a variety of experiences that will broaden his career perspective.
4. The student will learn how technological advances influence career decisions.
5. The student will learn about the interrelationships among various types of occupations.
6. The student will see that jobs within a particular occupational area are interrelated.
7. The student will see the interrelationships between business and labor.
8. The student will see the relative advantages and disadvantages of self and other employment.
9. The student will see the relative advantages and disadvantages in working in the public and private sectors of the economy.
10. The student will learn about the breakdown of stereotyping in jobs.
11. The student will learn how to use his leisure time so that it will be both relaxing and fulfilling.

Competence, Personal

1. The student will develop work habits and attitudes compatible with a selected field or work.
2. The student will understand that his abilities and interests can be respected in the things he chooses to do.
3. The student will become proficient in identifying and using resource information in making career decisions.

4. The student will understand that decision-making includes responsible action in identifying alternatives, selecting from alternatives and taking steps to implement the course of action.
5. The student will develop the skills required to analyze and work through a task process.
6. The student will understand the value of personal financial management and its influence on his life plans.
7. The student will develop competencies which he can identify and appreciate.

Competence, Social

1. The student will be able to cope with individual differences.
2. The student will understand a responsibility to himself and others whenever he accepts a work task.
3. The student will develop competency at working with and without supervision independently and with others.
4. The student will be able to identify different types of interpersonal relationships.
5. The student will become proficient at reacting in social situations in a way which facilitates group goals.
6. The student will be able to stress his assets and minimize weaknesses.
7, The student will be able to evaluate different life styles.
8. The student will be able to choose a life style with which he feels most comfortable.

Competence, Economic

1. The student will understand the value of money.
2. The student will understand the role of government in industry, business and labor.
3. The student will become competent in making decisions concerning the management of his personal financial resources.
4. The student will be able to identify his role in the overall economic structure.
5. The student will understand basic economic concepts.
6. The student will have a knowledge base relating to the history of work and relation of past occupations to today's variety of job choices.
7. The student will understand the interdependences and interrelationship between economic institutions.
8. The student will understand that economic institutions are expressions of social and political values of a society.
9. The student will develop competence in articulating the ways in which business and labor affect the economic system.

Competence, Occupational

1. The student will understand the job-seeking process.
2. The student will become proficient in using problem-solving techniques in job related activities.

3. The student will be able to recognize basic tools of occupational clusters.
4. The student will understand the role of rules and regulations in the work situation.
5. The student will develop an awareness of the impact of technology on society.
6. The student will become competent in locating career information.
7. The student will understand the necessity of having positive attitudes toward one's work.

Decision-Making

1. The student will recognize the need to make decisions throughout life.
2. The student will understand that decision making includes responsible action.
3. The student will become aware that his decisions must be made based upon some rational criterion such as life-goals and potential.
4. The student will project what the immediate, intermediate and long term effects of decisions will be.
5. The student will become aware that one's personal goals are important in making career decisions.
6. The student will become proficient in selecting alternatives to primary choices.

END